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ABSTRACT

A regional seminar examined and defined the goals of secondary education in countries of the Asia and Pacific region seminar; it also analyzed causes for changes in secondary education goals and emerging trends. A total of 20 participants from the following countries--Australia, Bangladesh, China, India, Indonesia, Japan, Malaysia, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand, and Viet Nam--presented information. Chapter 1 summarizes individual countries' experiences, analyzing the major economic, sociopolitical, and cultural changes that led to educational reforms; major educational developments; and the implementation and evaluation of secondary education goals. Chapter 2 discusses the implications of major economic, sociopolitical, and cultural developments for secondary education goals. Future regional scenarios of secondary education are presented in chapter 3, with a focus on the role of education in the 21st century. The fourth chapter presents conclusions and recommendations for action at the national, regional, and international levels. The annex includes a list of participants. (LMI)

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Towards Formulating Goals, Aims and Objectives of Secondary Education for the Twenty-First Century

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Towards Formulating Goals, Aims and Objectives of Secondary Education for the Twenty-First Century

Final Report of a Regional Seminar

National Institute for Educational Research (NIER)
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Introduction

Background

The past two decades have witnessed significant changes in the countries of the Asia and Pacific region, in all fields of human endeavour: social, cultural, economic, aesthetic, political, religious, all of which invariably have an impact on education systems. Some of these changes require not merely adaptations or adjustments in specific aspects of education such as the curriculum, the teaching-learning process, the delivery systems or assessment and evaluation, but substantive reorientation and reform in the goals, aims and objectives of the education systems themselves, across all levels, and especially at the second level which is closely related to human resource development.

Some of the factors associated with the radical changes to the goals, aims and objectives of secondary education are:

a) wider access to post-primary education;
b) enhanced channels for entry into further education, training and occupations;
c) youth unemployment;
d) new pedagogical philosophies and strategies;
e) extended responsibilities of youth, e.g., lower voting age;
f) increased freedom of action for youth;
g) a recognized need to extend the period of basic primary education to prepare young people for future challenges; and
h) appreciation of the significance of moral, ethics and values education.

In view of the above, there is an urgent need to re-examine and even redefine the goals, aims and objectives of secondary education. However, before doing so, it is desirable to study the existing goals, aims and objectives, how these are translated into educational measures, and how they are implemented, both through the formal and non-formal systems.

Consequently, the National Institute for Educational Research of Japan (NIER) convened a Regional Seminar on Goals, Aims and Objectives of Secondary Education in Asia and the Pacific, at NIER, Tokyo, Japan, from 16 to 31 October 1991, within the context of the Asia and Pacific Programme of Educational Innovation for Development (APEID), which is a networking mechanism for regional co-operation in education in the Asia and Pacific region.

Objectives

The objectives of the Seminar were as follows:

1) To provide a forum for reviewing and identifying the direction of changes in the goals, aims and objectives of education, especially at the second level;

2) To analyse causative reasons for the changes and their genesis in their different domains (socio-economic, cultural, educational, etc.); and

3) To identify emerging further changes in the goals, aims and objectives of secondary education, and their corresponding attributes in relation to 1) and 2) above.

Participation

Twenty participants and one observer from Australia, Bangladesh, China, India, Indonesia, Japan, Malaysia, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand and Viet Nam took part in the Seminar. In addition, two resource persons, one each from the Philippines and the UNESCO Principal Regional Office for Asia and the Pacific (PROAP), Bangkok, participated in the Seminar.

The list of participants, observer, resource persons and the NIER Secretariat appears at Annex.

Inauguration

The Seminar was inaugurated on 16 October 1991. Addresses were made by Mr. Hiromitsu Takizawa, Director-General, NIER; Mr. Kazuhiko Okada, Deputy Director, International Affairs Bureau, Ministry of Education, Science and Culture (MONBUSHO), Japan, and Ms. Charatsri Vajrabhaya, Programme Specialist in Educational Innovation, ACEID, UNESCO Principal Regional Office for Asia and the Pacific, Bangkok.

Election of Officers of the Seminar

The Seminar unanimously elected the following as Officers of the Seminar:

Chairperson	: Dr. Charles Henry Payne (Australia)
Vice-Chairpersons	: Prof. Arjun Dev (India)
	Dr. Gloria Z. Lasam (Philippines)
Rapporteur	: Mrs. Mok Choon Hoe (Singapore)

Organization of the Seminar

Before and after the inaugural session, Mr. Ryo Watanabe, Chief, Section for International Co-operation in Education, and Mr. Nobuya Higuchi, Chief, Section for International Co-operation in Research, Department of International Education, NIER, gave a briefing on various aspects of the Seminar.

The Seminar conducted its work in plenary sessions as well as in group sessions.

The two working groups had the following office bearers:

Group I: Chairperson: Prof. Arjun Dev (India)
Rapporteur: Mr. Peter Kwang Sing Hock (Singapore)

Group II: Chairperson: Dr. Gloria Z. Lasam (Philippines)
Rapporteur: Mr. Gorham Milbank (New Zealand)

Group I discussed (a) socio-political, economic, cultural and other developments which have implications for the goals, aims and objectives of education; and (b) possible future national development goals which may be responsive to future scenarios of the twenty-first century.

Group II discussed (a) the goals, aims and objectives of education in general, and of secondary education in particular; and (b) possible future goals, aims and objectives of education in general, and of secondary education in particular, bearing in mind those future scenarios.

Closing session

The draft final report was presented to the Seminar at the final working session on 31 October 1991, and was adopted with minor modifications.

CHAPTER I

Summary of Country Experiences

In view of the diverse socio-political, economic and cultural backgrounds and varying degree of national development of the 17 countries represented in the Regional Seminar, it was considered desirable, as the first substantive item of the agenda, to learn about individual country experiences in terms of efforts to achieve the current goals, aims and objectives of secondary education, and issues and concerns which have arisen. The situations in the countries of the Asia and the Pacific region can then serve as a groundwork for formulating a regional perspective on the topic of the Seminar.

The participants therefore presented their country reports, the summaries of which were prepared by the participants themselves, and recorded in this Chapter. Each summary generally covered the following elements:

1. Major economic, socio-political and cultural changes which became the bases for educational reforms;

2. Major educational developments, including changes in policies, programmes and strategies;

3. Developments of secondary education, focusing on changes in goals, aims, and objectives, and implementation and evaluation of the current goals, aims and objectives;

4. Trends and views on anticipated changes in goals, aims and objectives of secondary education to make it more responsive to future scenarios.

Australia

Major economic, socio-political and cultural changes are complex and interdependent phenomena, but the most obvious recent driving force for change in Australia has been economic.

Concern for the economy is a pre-occupation as Australia has been trying to shift from a primary products exporting nation to a 'clever country'. Australia's ranking in the world by some measures of living standards has slipped. Youth unemployment is a chronic problem to be solved. A severe recession has led to education and training being emphasized as solutions to economic problems.

Future prosperity is seen to lie in the economic rationalist philosophy of competition and free markets in the new information age where wealth is generated through intellectual power and skills. The economy must be structurally efficient and allow immediate deployment of resources to meet demand wherever it exists. Workers must have the general skills to be flexible, adaptable and team-oriented. The economy and education must be viewed nationally.

In secondary education, choice will allow the market to operate. Inputs

to education must be related to outputs in order to assess efficiency and effectiveness. Employability of students is an indicator of efficiency.

Australia is also seeking a new place in the world. Internally it seeks to realize its multicultural nature. Externally, it seeks to recognize geographical reality as a Pacific rim nation close to Asia.

Australia seeks an egalitarian society which allows considerable individual variation based on merit. Opportunities should be available for all, but those who seize them should be entitled to their rewards. Social justice policies should ensure a level playing field for all, that those who are disadvantaged are helped through affirmative action and that no-one lives in poverty.

Australia has an aging population and a low birth rate moderated to some extent by migration. Parents form a lower proportion of the voting population and the resource demands of education are less favourably met. At the same time governments want more direct control in order to ensure that policies are implemented and that education is responsive to a more demanding electorate.

A major development has been a more national outlook with states, territories and Commonwealth working together to remove unnecessary differences, develop common objectives and pursue similar strategies as a response to national problems. Twelve years of education for all is within sight. This should include a common curriculum for all in broad frameworks which allow internal diversity, facilitate greater degrees of choice as the child proceeds through schooling and leaves sufficient time at school to cater for state and local needs.

A new balance of curriculum responsibilities for national, system, school, and teacher levels is sought.

The comprehensive school is now faced by the demand for diversity.

Devolution means individual schools develop their own identity and freedom of action within broad policy directions set by the state and the curriculum. Middle layers of educational administration are being obliterated and flat structures prevail with schools exercising consumer rights. Managerialism adopted from business is the attitude of government and demonstrable results are demanded.

Governments see schools as instruments of policy implementation and demand responsiveness. Employment-related skills which will build the economy must be given priority and be integral to general education. Schools must also further government's objectives for equity and social justice.

In junior secondary (years 7 or 8 to 10) there has not been much change in recent years, though there is a widespread feeling that the level needs examination because it may have been neglected. The Northern Territory has just drafted aims in the area and South Australia has an enquiry under way. Generally the years to the end of compulsory schooling (age 15) are regarded as an extension of the common curriculum encompassing areas in which all students should study with expanding opportunities to follow-up an interest,

correct deficiencies or be extended.

In senior secondary there is a move towards prescribing minimum patterns of study to ensure basic competencies have been attained and a balanced pattern of studies. As two years of education beyond year 10 becomes expected by 1995, there is some division as to whether all should be at school or whether some should pursue alternative pathways, e.g. in technical institutions. It is recognized that there must be sufficient options to meet the needs of the full range of students - in abilities, aptitudes and interests. There is also, in the recent Finn Report, a decided emphasis on making technical education more general and school education more vocational.

The recommendations of the Finn report are a definite swing to vocational purposes for education. It has listed key employment-related competencies which are to be assessed and reported upon. These competencies are broad and developmental in nature and will be identified at all levels so that individual student progress can be plotted as well as system results.

Education is under intense scrutiny. The education reporter on a major newspaper is now a leading journalist. Governments regard it as a key area and often as instrumental for policy implementation. The general population is better educated and feels motivated to take a critical interest. Consequently current goals, aims and objectives of secondary education are subject to continuing evaluation.

Politicians are demanding assessment of outcomes so that they can ascertain value for money. Often this takes the form of demands for credible external assessment or external moderation of school-based assessments.

Such hard-nosed inspection is not unwelcome. The vast increase in inputs to education over the last two decades has not been matched by commensurate outputs. Critical examination will highlight weaknesses and ensure something is done. There are deficiencies in catering for the full range of students, particularly in the latter years. Business is being involved in education and this will force business to better define its expectations. Scrutiny will force reconsideration of attractive theory in terms of the reality of what is desired and achievable.

Some changes can be anticipated with confidence. Technology is going to be influential, not only in changing the student learning environment but also in determining basic and vocational skills which students should have the opportunity to master. There must be some societal consensus on just what skills and competencies are expected of school leavers.

Life-long education will become a fact in the form of entitlements. Each citizen will have an entitlement to so much education. How that entitlement is drawn upon will become increasingly variegated. Basic education will increasingly be seen in terms of an older concept as equipping the individual to pursue his or her own studies as occasion calls. All citizens will be expected to do considerable studies beyond year 12.

Australia will continue to adjust to its place in the world - economically and geographically. This will be reflected in expectations of schools which will have to prepare young people for the world in which they will

live.

There will eventually be a swing away from narrow vocational preparation. Manpower planning will prove difficult. In prosperous times, education as a good in itself will re-emerge and the virtues of flexibility and adaptability inherent in general education will be reacknowledged.

Secondary education will continue to be seen as an instrument for social engineering - achieving desirable social goals. All curricula, assessment and certification will be inclusive. Values, which have been comparatively neglected, will re-emerge as basic tenets of schooling to save the nation from some of the negative aspects of the free market.

Bangladesh

In the map of South Asia within an area of 143,998 square kilometres of land with a population of about 112 millions, Bangladesh is a country which is the most vulnerable in the region to almost all kinds of natural calamities such as cyclones, tornadoes, floods and droughts. Already overburdened with over-population, Bangladesh has a very high percentage of population growth hindering all efforts at economic development of the country.

In Bangladesh there is a 5-year primary education followed by a 5-year secondary and a 2-year higher secondary education. After completion of secondary education at the end of grade 10, students take the first public examination known as S.S.C (Secondary School Certificate) examination. After passing the S.S.C examination, they sit for the H.S.C. (Higher Secondary Certificate) examination at the end of grade 12. This H.S.C qualification is the minimum requirement for admission to degree colleges, general and technical universities and medical colleges.

There is another parallel system known as Madrasah education offering Islamic courses to Muslim children. The Madrasah system has the following stages: Ebtedayee (i.e. 5 years of primary course), Dakhil (5 years after Ebtedayee), Alim (2 years after Dakhil), Fazil (2 years after Alim) and Kamil (2 years after Fazil). Subjects taught in these institutions focus mainly on the study of the Holy Quran, Hadith, Tafsir, Fiqh, Usul and Arabic language and literature. In addition, provision has also been for the teaching of general subjects like English, Bengali, Mathematics, General science and Social studies. After 10 years of education, Madrasah students take the Dakhil examination and at the end of grade 12, the Alim examination. These examinations are centrally conducted by a Madrasah Education Board and for all purposes Dakhil and Alim examinations are considered as equivalent to S.S.C and H.S.C examinations under the general system of education of the country.

Following the recommendations of the National Education Commission Report of 1959 major changes in the curriculum were made in 1961 during the pre-independence days of Bangladesh. Following these recommendations four regional Boards of Intermediate and Secondary Education were set up, one in each of the 4 administrative divisions of the country. These Boards were entrusted with the responsibility of conducting the first two public examinations of S.S.C. and H.S.C. In 1961, general science was made a compulsory subject up to grade 10, and a multi-stream system was introduced from grade 9 in

place of grade 11.

After the emergence of Bangladesh, following the Education Commission Report of 1974, a National Curriculum and Syllabus Committee was set up in 1975. The National Curriculum Development Centre was established in 1980 which was ultimately merged in 1983 with the Bangladesh School Textbook Board into a single autonomous body named National Curriculum and Textbook Board (NCTB). This body is now responsible for continuous evaluation, revision, updating and improvement of curricula and syllabuses as well as for producing textbooks, teachers' guides and other teaching learning materials up to HSC level.

A new set of curricula and syllabi was developed during 1976-78 and was implemented in phases at the primary and secondary levels during 1978-84. Attempts have been made to make education relevant to life and to emphasize the role of science and technology for economic and social development and improving the quality of life. New textbooks have been written with modern contents and approaches, and new topics such as ecological balance, plants in service of mankind, food nutrition and alimentary system, sericulture, apiculture, population, public health and environment, have been included in the syllabus. The implementation of the new curricula and syllabi has, however, not been very successful as yet. There have been complaints from students and guardians about the syllabi being too heavy and the textbooks being badly written.

A close examination of the existing curricula and syllabi reveals many deficiencies and weaknesses. Some of the urgent measures that are relevant in this regard are:

- updating of contents of the courses in existing subjects;
- introducing new subjects, whenever necessary;
- adoption of new and modern approaches in the writing of textbooks and teachers' guides;
- taking steps to attract more qualified and talented people to the teaching profession;
- developing new teaching-learning methods and improving teacher training;
- evolving appropriate systems of evaluation to discourage rote-learning and memorization, and to prevent the use of unfair means in the examination hall;
- giving an increased emphasis on the development of skills and methods by means of which a student can apply his/her newly acquired knowledge to his/her real-life situations, and solving problems of a practical nature.

China

By the end of the 1970s and in the early part of the 1980s, great changes have taken place in the economic, political, social and cultural conditions in China. In 1978, the country launched its "four modernization" drive, following the guidelines of modernization, China has pursued a series of reforms by restructuring its rural and urban economy. Since then, the open policy has been adopted by the Chinese Government. In terms of education,

three orientations or dimensions were proposed: education should be directed towards modernization, the world, and the future.

In 1985, the name of the Ministry of Education was changed to State Education Commission, for the purpose of involving all the other government agencies in education. In 1986, a Law on the Nine-year Compulsory Education of the People's Republic of China was promulgated. In 1990, the enrolment rate of primary and secondary education reached 97.6% and 74.6% respectively. In the meantime, secondary education was reorganized. This was in the form of the establishment of a large number of vocational high schools at the senior secondary level. In the fields of higher education and adult education, necessary strategies were formulated to adjust the structure and contents of education; for instance, the number of colleges and universities were restricted, and the instruction of adult education was reoriented to the in-service training or continuing learning. Diversified delivery systems of education, such as TV university and correspondence schools, were introduced.

Against the above-mentioned background, there were major educational changes made on the basis of the following considerations:

1) The nine-year compulsory education requires improvement and strengthening of junior secondary education;

2) The socialist construction and modernization needed a large number of qualified and skilled workers or labourers. Considering the fact that 59.4% of the junior secondary school graduates cannot enter educational institutions at a higher level and 80% of the senior secondary school graduates cannot enrol in colleges and universities, the educational programmes had to provide for the majority of students;

3) The changes and development of our society and economy call for the refinement and revision of the aims and objectives as well as the curriculum of secondary education;

4) Secondary education should be well organized and prepared for the 21st country by providing the young generation with the capacity to meet the challenges of the world-wide science and technology revolution.

Based on the above-cited considerations, China has prepared, as the first step, a new " National Instruction Plan of Compulsory Education (draft)". Following the national plan, curriculum for different subjects as well as a whole set of textbooks have been developed and used on a trial basis. They will be fully implemented in 1993. In this national plan, the "dual aims" of secondary education are not only meant for laying a sound foundation for either advanced study or employment, but also for developing adaptability to the changing society and personality development.

The next step will be the comprehensive reform of senior secondary education. The present aims and objectives of secondary education, adopted in 1981, laid emphasis on the development of both knowledge and basic skills. The overall development of students, such as originality, critical thinking,

problem-solving, productive and living skills, etc. was ignored. In this regard, the State Education Commission decided to start revising the comprehensive instruction plan (including aims and objectives of senior secondary education) and take further steps to improve school curriculum and school management, aiming at making them more relevant to the social, economic and political development of the country.

The establishment of the present goals, aims and objectives of education does not mean that there is no need to make any changes in the future. Undoubtedly,they will have to respond to the needs of the socio-economic development as well as science and technology of the future changing society. The aims and objectives of a modern secondary education in China are based on the following framework:

1) The aims and objectives of junior and senior secondary education are defined and identified separately;

2) More emphasis is put on the moral aspects of the young students;

3) The overall personality development is stressed;

4) The adaptability of the students to the present and future society is emphasized.

India

1. General Framework

India emerged as an independent nation in 1947 after a long period of colonial rule. The main feature of economic life at the time of independence were: a backward system of agriculture which was not able to meet even the country's food requirements; a few industries, mainly in the manufacturing sector, concentrated in a few parts of the country; and an impoverished people. The Indian social system was marked by gross inequalities due to the hierarchical system of caste. The colonial economic policies had introduced new inequalities by creating a class of landlords, increasing rural indebtedness and rendering a large mass of the peasants landless. Indian culture was derided by the colonial rulers and its growth was stunted. The indigenous systems of education were destroyed as a result of the colonial administrative policies. The education system introduced by the colonial rulers bred in the few who were educated an attitude of contempt and neglect for their country and the people, while most of the population was rendered illiterate. The freedom movement in India which fought for the country's independence also evolved principles for the reconstruction of Indian economy, society, culture and polity. These principles were enshrined in the country's Constitution and constitute India's national goals. These goals are democracy, socialism, secularism and national unity. The Constitution also lays down the promotion of international peace and security as the duty of the State.

India is a parliamentary democracy and has developed democratic political institutions which have functioned without any interruption since independence. Efforts have been made to overcome the colonial legacy and to promote national development and national goals within the parliamentary

democratic framework. Significant changes have taken place over the years in every sector of national life. The growth of agriculture has enabled the country to meet all its requirements of food and other agricultural products. Notable progress has been made in every sector of industry, and a strong industrial infrastructure has been created with a vast scientific and technological manpower. However, Indian economy is still a developing one. Some of the most oppressive features of the caste system have been eliminated, and a policy of affirmative discrimination in favour of the depressed classes and other disadvantaged groups is followed. India is a multi-religious, multilingual, and multi-cultural country, and this diversity and variety is cherished and nurtured. The States which comprise the Union of India were reorganized on the basis of the linguistic principle soon after independence in order to facilitate the development of all linguisitic-cultural regions of the country. The principle of secularism which is one of the fundamental bases of Indian nationhood, while it forbids the State from favouring or discriminating against any religion, is also an important factor in the modernization of political, social and cultural life. The process of national development has, however, not been without serious tensions and there have been problems created by obscurantist, sectarian and revivalist forces.

All these developments had a close bearing on the formulation of educational goals, policies and programmes. In 1976, a new part on Fundamental Duties was added to India's Constitution. This provision, which reflected some of the urgent concerns of the country and had a direct bearing on educational goals, made it the duty of every Indian citizen to, among others, uphold and protect the sovereignty, unity and integrity of India, to promote harmony and the spirit of common brotherhood amongst all the people of India, to renounce practices derogatory to the dignity of women, to value and preserve the rich heritage of India's composite culture, to protect and improve the natural environment and to have compassion for living creatures, and to develop the scientific temper, humanism and the spirit of inquiry and reform.

2. Major Educational Developments

The major efforts at educational development have been in the direction of overcoming the colonial legacy in education and to build a national system of education. The programmes and policies followed since independence have aimed at ending illiteracy and expansion and restructuring of education in every sector as well as for reorientation of its goals, objectives and content. One of the major objectives has been the universalization of primary education (education up to the age of 14) which is a Constitutional obligation. Though secondary education has been expanding, its universalization is not on the agenda. However, the qualitative improvement of secondary education has been one of the primary objectives of educational reform in India since independence.

Secondary Education

The most comprehensive reform of secondary education was initiated as a follow-up of the Report of the Education Commission (1964-66). Entitled Education and National Development, this report dealt with every aspect of education. Though many new issues and programmes have emerged in the field of education subsequent to its publication, it still remains the basic docu-

ment of educational reform and reorientation in India. It dealt with the role of education in relation to problems of national development. "The most important and urgent reform needed in education", the report said, "is to transform it, to endeavour to relate it to the life, needs and aspirations of people and thereby make it the powerful instrument of the social, economic and cultural transformation necessary for the realization of the national goals". Making science a basic component of education and culture, making work-experience an integral part of general education and vocationalization of education, especially at the secondary school level, to meet the needs of industry, agriculture and trade, were advocated as high priority programmes in the plans of educational reconstruction. Among the other objectives that this report emphasized were the adoption of a common school system of public education, an appropriate language policy, promotion of national consciousness and international understanding, a radical alteration in the methods of teaching with a shift of the emphasis from imparting of knowledge or the preparation of a finished product to the awakening of curiosity, the development of proper interests, attitudes and values and the building up of such essential skills as independent study, the capacity to think and judge for oneself, and the development of fundamental social, moral and spiritual values.

The National Policy on Education in 1968 laid down a new uniform educational structure in all parts of the country. Under this pattern, the first ten years of school education were visualized as the stage of general education with undifferentiated courses, with the objective of equipping children to be responsible citizens and providing them with basic knowledge for daily life. Science and mathematics were made an integral part of general education. The higher secondary stage (grades 11 to 12) provided for diversified courses with accent on vocationalization.

As a part of the implementation of the new pattern, a framework of national curriculum for all stages of school education, including the secondary stage, and objectives of curriculum for each stage and for each subject, were formulated. The new National Policy on Education which was adopted by the Indian Parliament in 1986 took into account a number of new concerns and issues which were reflected in the national curriculum framework with a common core. The goals of education, as expressed in the Policy, include:

Develop knowledge, skills and abilities and foster values for the realization of national goals;

Promote the growth of the full potential of the individual and develop in him/her the ability to internalize new ideas constantly and creatively;

Promote values such as egalitarianism, democracy and socialism, equality of the sexes, protection of the environment, removal of social barriers and observance of the small family norm;

Create a sense of common citizenship and commitment to humane values and to social justice;

Refine sensitivities and perceptions that contribute to national cohesion and develop scientific temper and independence of mind and spirit;

Motivate the younger generation for international peace and cooperation;

Develop sensitivity to beauty, harmony and refinement;

Develop manpower for different levels of the economy;

Combat obscurantism, religious fanaticism, violence, superstition and fatalism;

Promote an understanding of the diverse cultural and social systems of people living in different parts of the country and the country's composite cultural heritage; and

Develop prerequisites and habits necessary for self-learning and for life-long learning leading to the creation of a learning society.

The objectives of secondary education curriculum which have been formulated in the documents on national curriculum framework seek to reflect the national goals and objectives of secondary education. The 1975 curriculum framework document for general education stresses the necessity for flexibility and dynamism in the curriculum so that with the rapidly expanding frontiers of knowledge in science and technology and the changing socio-economic conditions, it does not get outdated, and of built-in mechanism for curriculum renewal. It lays stress on the relationship between curriculum and national integration, social justice, productivity, modernization of the society and cultivation of moral and spiritual values, the importance of upgrading and continually renewing the curriculum, and of work experience as a source of learning, ending the segregation between education and life and work, interest in beauty and the ability to discern it and integrate it into one's personality, together with other components of artistic experience, self-actualization, and the process of learning, and particularly self-learning. It also emphasizes, promotion of the objectives of social consciousness, national integration and international consciousness through curriculum.

With regard to the teaching of languages, the national policy and the curriculum framework lay down what is popularly known as the Three Language Formula up to grade x. This formula represents an integrated scheme of facilitating inter-cultural communication within the the country, given its multi-lingual character, and with the rest of the world. The 1988 national curriculum framework redefines these objectives and articulates in more specific terms some of the concerns which have acquired an added significance in recent years, particularly, those relating to national identity and international understanding, protection of the environment, promotion of scientific temper, removal of gender bias and social barriers, problems of over population and the cultivation of social and moral values.

While most major concerns and issues have been tackled at the level of the formulation of educational policies, and goals and objectives, and curriculum of secondary education, in actual implementation the progress can hardly be called satisfactory. The system of public examinations is a major factor in subverting the goals and objectives of education. While achievements in the areas of modernization of curriculum are significant, the class-

room practices continue to follow a mechanical routine. The success of the programme of vocationalization has also so far been far below the expectations.

Indonesia

Introduction

According to the 1985 National Census, the population of Indonesia is over 164,000,000. More than 10% of the population (more than 17,000,000) is of the secondary school age (15-19 years). It was estimated that in 1990 the population was about 180,000,000. If the percentage of the secondary school age children holds, then the number of secondary school age children in 1990 was about 18,000,000.

Education in Indonesia is based on the national philosophy, i.e. Pancasila or Five Principles, and the 1945 Constitution. In the 1945 Constitution it is stated that the Government must provide education to the highest possible level for every Indonesian citizen. To implement this political will, in the early 1970s the Government of Indonesia introduced compulsory education up to primary level (grade 6). It was fortunate for Indonesia that in the late 1960s and early 1970s there was an oil price boom that boosted the economy of Indonesia. This in turn increased the capability of the Government to support education. Education is generally viewed as one of vital and important factors to improve human life. Therefore in the last decade the Government of Indonesia has given priority to education, as reflected in the distribution of the national budget. In the last decade education is one of the three sectors that has been receiving the highest funding of the Government.

Indonesia consists of many ethnic groups. There are more than 250 different/local languages spoken. The national and official language is Bahasa Indonesia, which is used to unify the differences (Unity in diversity) and as a medium of instruction at all levels of education.

Indonesia has a centralized education system, e.g, all schools use the same curriculum. According to Education Law Number 2, the 1989 National Education of Indonesia has as its goal and function to develop abilities and improve the quality of life and the prosperity of all Indonesian citizens. The main objective of national education of Indonesia is to educate and develop all Indonesian citizens into whole human beings, that is human beings who believe and trust in the One Supreme God and have manners, knowledge and skills, physically and mentally healthy, have self-confidence and identity, and have national responsibilities.

The education system of Indonesia follows the 6-3-3 system, that is, 6 years of elementary school, 3 years of junior secondary school, and 3 years of senior secondary school. There is also pre-school education or kindergarten. Higher education (college/university level) is the continuing education after senior high school. This summary report focuses only on senior secondary education in Indonesia.

Senior Secondary Education

Senior secondary education is the continuation and development of primary and junior secondary education. The main objective of this level is to prepare the young to acquire knowledge and be able to interact in social, cultural, and physical environments, to enable them to develop the necessary knowledge for further/higher level of education, or to enter the world of work.

In general, senior secondary education can be classified into general education and vocational education. General education focuses on the acquisition and development of general knowledge (i.e. mathematics, language, sciences, social sciences) and the development of particular skills. Vocational education focuses on the preparation of pupils to master particular skills so they will be ready to enter the job market. Vocational education consists of several types of school, for example economics senior secondary school, technical school, home economics senior secondary school, and sport teacher training.

The total number of general senior secondary schools is 8,010 with 70,057 classrooms. The total number of students is almost three million (2,723,889). Whereas the total number of teachers is 244,817.

The total number of courses in general senior high school is 15 (religious education, moral education, national history, Indonesian language, world history, economics, geography, physical education, art, particular skills, mathematics, biology, physics, chemistry, and English).

The total number of vocational schools is 3,540 and the total number of vocational classrooms is 34,079. The total number of vocational students is 1,306,975 and the total number of vocational teachers is 102,608.

The number of subject matters in vocational education varies according to the school type.

Dilemma/Problems of Senior Secondary Education

There are several issues about senior secondary education in Indonesia. Because of the limited number of seats in higher education, only a small percentage (about 17%) of senior secondary school graduates can be accepted in higher education (college/university).

One of the issues of senior secondary education in Indonesia is the function and direction of the senior secondary education. The issue is whether the senior secondary schools are preparing pupils for higher education? Or, are they preparing pupils for the job market (to be ready for work)?

Even though there is no data available, there is a general complaint from the job market, particularly from private industries (i.e. banks and factories) that most of the senior secondary school graduates are not yet ready to work. The private industries have to train senior secondary school graduates before they are assigned a particular job. This general complaint

is valid for both general and vocational school graduates. Surprisingly, some industries prefer to hire general senior secondary school graduates rather than vocational secondary school graduates, because according to their view and experience it is easier to train general secondary school graduates than vocational secondary school graduates and they perform better on the job.

It is still debatable in Indonesia whether the main function of education for senior high schools is to prepare pupils as human resources or to become part of the production sector in the national development (economics values). Or it is a means to educate and promote people as a whole human being (humanistic values)?

Several efforts to improve senior secondary education had been done and are still being done. One of the efforts is by revising the school curricula. Almost every ten years the school curricula are revised to be in concordance with the development of current conditions. Another effort is by revising the streaming in general secondary education and improving school facilities in vocational education. Even though a lot of things has been done to improve senior secondary education in Indonesia, there is still the unsolved question: What is the national direction of the senior secondary education? Preparing pupils for higher education or for the job market?

One of the efforts to cope with future education is that the curriculum is being revised, and by 1994 hopefully that it can be implemented. The major revision of the curriculum is that regional/local schools are expected to contribute more to the curricular contents.

Japan

1. Background: Major Socio-economic Changes

The major socio-economic changes which influenced educational reforms are as follows:

Maturation of society: Indicators of Japan's maturing society include the increase in leisure time, the expansion of freedom of choice, changes in industrial and employment structures, rapid aging of the Japanese population.

The advancement of science and technology: There is an increasing demand for persons possessing intellectual ability, high productivity, distinctive individuality, creativity and sensitivity.

Internationalization: More importance has been placed on Japan's international contributions in many fields such as education, research, culture, sports, science and technology.

2. Major Educational Developments

In Japan, the enrolment rate for compulsory education has been almost 100% since 1948. The advancement rate to upper secondary school level was 42.5% in 1950, and became more than 90% in 1974. The advancement rate to universities and junior colleges was 30% in 1973 and became more than 37% in

1990.

In the 1970s, educational development in Japan moved from a stage of quantitative expansion to a stage of qualitative fulfillment. The rationale of educational policies and strategies changed from one of rigid manpower planning to a flexible human development system. This change of emphasis is to meet major socio-economic changes. However, an education system to develop the quality of life of the people has yet to be realized in Japan.

3. Secondary Education Developments

In Japan lower secondary education is compulsory, and goals, aims and objectives of compulsory education have basically never been changed since the 1940s.

There are some special features in the development of upper secondary education in Japan. Firstly, advancement rates to upper secondary level are similar between male and female students, both reaching more than 95%. Secondly, the ratio of students in the general course to the total number of students was 58% in 1960, and 74% in 1989. But, the enrollment in the vocational course has declined.

The reasons for this decline in popularity of vocational education may be due to the following: Firstly, with the expansion of higher education, upper secondary schooling is regarded as a passage towards a university or a junior college for many students. The vocational courses are considered to be a disadvantage to those who desire to advance to universities or junior colleges. Secondly, traditional vocational education at secondary school level does not meet the needs arising from the rapid changes in the industrial and employment sections.

4. Present Situation of Secondary Education

(1) Educational expansion and success in industry

Japanese industrial society has undergone a two-stage development since the Meiji Restoration. In the first stage the agricultural society changed into an industrial society with the industrial revolution. In the second stage the present advanced technological society was established. During both of these stages, education made great contributions to the society through a quantitative expansion in secondary education.

(2) Academic emphasis and keen competition in entrance examinations for schools

Since the Meiji Restoration, able people were widely sought after to help in the modernization of the country. "Schools" played an important role in recruiting promising people. Such respect for one's academic-background created a keen competition to seek for a school admission. Some students study so diligently that their mental and physical health are sacrificed in order to raise their academic scores.

(3) Problems involved in curriculum organization

In the process of expansion of upper secondary education, the following problems have surfaced:

(a) Though as many as 22% of the graduates in the general course get employed upon graduation, they have not received any pre-vocational training.

(b) The number of students in the vocational courses as a percentage of the total number of students was about 40% in 1965, but has declined to 25% today.

(c) Among graduates in the vocational courses, the number of those who desire to proceed to schools at higher levels have been increasing recently. Education preparing for tertiary level, however, is not satisfactory.

(d) The course structure and curriculum do not satisfactorily meet the social changes taking place in industry, employment, international relations, information, and technological innovation.

(4) Changes in youth and uniformity in education

Young people in secondary education respond quickly to social changes, and their life-style and ways of thinking have become more diversified. However, upper secondary education does not meet the needs of the students and has remained traditional. The orientation of upper secondary education towards preparation for university entrance examinations is considered to be an important factor responsible for uniformity in education.

(5) Increase in the number of students unwillingly entering the upper secondary schools

The career guidance for students given on the basis of the deviation scores of academic achievement increases the number of students unwillingly entering the upper secondary school. Such students cannot adjust themselves to the school. This is responsible for dissatisfaction with the school, decline in desire for study, delinquency of students and higher drop-out rates. Furthermore, there is no provision for the transfer of students to other courses and other schools.

5. Proposed Directions for Secondary Education

(1) Measures to improve upper secondary education:

(a) Changes from quantitative expansion to qualitative improvement to meet the aptitudes of individual students;

(b) Changes from nominal equality to real equality, in other words, from uniform equality to equitability responding to students' abilities and interests; and

(c) Changes from too much importance on academic scores to respecting individual differences and talents.

(2) Direction of reform at the upper secondary education:

(a) Creating a new comprehensive course such as a combination of the general and vocational courses;

(b) Reorganization of vocational courses to adjust to changes in the structures of industry and employment in the country;

(c) Improvement of such courses as science, music, fine arts, physical education, English, drama and so on;

(d) Improvement of vocational curriculum in the general course; and

(e) Establishment of new types of secondary schools with emphasis on international understanding, credit accumulation, sports, arts, and others.

(3) Contents and methods of education

(a) The credit system should be adopted in each upper secondary school. In order to meet individual needs of students with different abilities and aptitudes, students should be given wider options in choice of subjects and be allowed to accumulate their credits.

(b) Inter-school connection should be promoted. A general school may be linked to a vocational school to allow students to study some unique and useful subjects at the other school.

(c) Transfers between schools and between courses should be permitted. It may be appropriate to reserve a certain number of seats within each school or each course for students to transfer each year. It is also necessary to give those who have left without graduating, or dropped out of upper secondary schools, the opportunity to return to school.

In keeping with life-long education it is timely to set up a system which recognizes credits previously acquired and counts them for graduation.

(d) Exceptional and flexible arrangements in education will have to be considered. In particular fields such as mathematics and physics, it is desirable to give talented students research activities at the universities.

Malaysia

Changes in the political scene in Malaya after independence led to the establishment of the national education system as legislated for in the Education Ordinance 1957. It was later endorsed by the Education Review Com-

mittee 1960 and formulated in the Education Act 1961. The objectives were to unify children of all races under the same education system and to prepare human resources to develop the nation.

A new challenge of national unity and economic growth, however, was faced by the nation on the formation of Malaysia in 1963. A unified education system was needed then to redress imbalances between different ethnic groups and rural and urban areas in the country.

In the 1970s the educational emphasis shifted to producing more skilled technicians and professionals in line with the New Economic Policy. Specialization in education then began at the lower secondary education.

In 1979 a major educational development took place. The Cabinet Committee reviewed the implementation of the education policy since Independence (1959). With the Cabinet Committee Report, both primary and secondary education were revamped in terms of its philosophy, aims and objectives, implementation and evaluation. There will be a gradual phasing out of the arts, science, vocational and technical streams into only academic and vocational streams. To further clarify and give direction to the Malaysian Education System, the National Philosophy of Education (NEP) was defined in 1987. It states that:

> "Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are responsible and capable of achieving a high level of personal well-being as well as being able to contribute to the betterment of the society and nation at large."

Based on the NEP, the aim and objectives of Malaysian education are:

The aim of secondary education is to further develop the potential of the individual in a holistic, balanced an integrated manner, encompassing the intellectual, spiritual, emotional and physical aspects in order to create a balanced and harmonious human being with high moral standards.

The objectives are to enable students to:
- increase language proficiency for effective communication;
- upgrade the use of Malay language as a national and official language towards acquisition of knowledge and the achievement of national unity;
- develop and enhance intellectual capacity with respect to rational, critical and creative thinking;
- acquire knowledge and develop a mastery of skills and to use them in daily life;
- develop skills to cope with new areas of knowledge and development in technology;
- develop abilities and faculties for the betterment of themselves

and society;
- develop the confidence and resilience to face challenges in life;
- understand, be aware of and appreciate the history and the socio-cultural milieu of the country;
- be aware of the importance of one's health and strive to maintain it;
- be sensitive to, concerned about and appreciative of the environment and its aesthetic value;
- acquire, appreciate and practise accepted moral values;
- to have a love for knowledge and to constantly strive towards increasing and developing it; and
- to develop a deep sense of responsibility and to be prepared to serve the religion and the nation.

Correspondingly, the curriculum at the secondary level has been formulated to realize their aspiration in which a complete education encompasses acquisition of knowledge, skills, values and effective use of language. Through an integrated approach, students of lower secondary schools study core subjects of Malay Language, English, Islamic or Moral Education, History, Geography, Mathematics, Science, Physical and Health Education, Art Education (in addition to Chinese or Tamil Language), while in the upper secondary schools students are able to choose subjects from the Humanities, Vocational and Technology and Science electives, according to their inclination and abilities,.

To ensure that the aim and objectives of education are met, there is a departure in the evaluation system from the present trend. As from 1973, evaluation takes the form of centralized/national examination, administered by the Examination Syndicate, and school-based assessment administered by the schools. Evaluation is not only based on product, but would involve processes as well.

Current trends in Malaysia seem to indicate that there is a growing realization among the Malaysian youth of the need to shift the age-old age tradition of seeking only white-collar jobs in preference to blue-collar ones. This shift is becoming more evident as there is a pressing demand for places in vocational schools. It can be anticipated that there will be a noticeable change of attitudes concerning education and training. This trend suggests that vocational education has to assume an integral core of secondary education. As Malaysia is experiencing a change in its economic structure and rapidly entering the era of industrialization, there will be an increase in the demand for technical expertise, management ability, entrepreneurship and resilience in its human resources. Therefore the individuals who emerge from the national education system must conform with the purpose of human development to effectively contribute to building a harmonious, unified and prosperous Malaysia in the 21st century.

Nepal

English education had been introduced in Nepal with the setting up of the Darbar School in 1853. It was a copy of the system earlier introduced in India under Macaulay's influence. The political change of 1951 opened a new era of educational development in the country. With the sudden realization of

the value of education in the development of personality and for life, efforts were made for its expansion by the government as well as by the people. The Department of Education, Office of the Chief Inspector of Schools was opened in 1954. In the same year, the Nepal National Education Planning Commission (NNEPC) was set up. The All-Round National Education Committee (ARNEC) was organized in 1961 and efforts were made to have a well-planned educational system. His Majesty's Government of Nepal introduced the Comprehensive National Education System Plan (NESP) in 1971 which tried to set educational goals and to systematize the pattern of education in its various aspects. In the 1970s, two important steps were taken: vocational education was introduced in a few selected high schools and primary education was made compulsory in a few districts. Vocational education was also made compulsory in all the secondary schools of the country. As the NESP was not meeting the demands of the country, some changes were made in 1981. After the restoration of democracy recently, the new government has set up the National Education Commission (NEC). This Commission is now engaged in the task of making recommendations for educational reforms in the country.

Nepal is a country of ethnic and linguistic diversity. Prior to the implementation of the NESP, national goals of education, although not explicitly spelled out, were reflected in one way or another, in the educational programmes and the syllabi.

Various efforts have been made during the past three and a half decades to establish a sound education system. In spite of the changes introduced by the NESP and significant quantitative expansion, some of the deficiencies observed were:

(a) The quality of education had not improved much.

(b) A large number of children remained out of school.

(c) The vocational education programme did not yield the expected results in terms of skilled manpower.

(d) The dropout rate at the primary school level and the failure rate at the final School Leaving Certificate Examinations(SLC Exam) remained at high levels. This was due to the uncontrolled expansion of schools without providing the necessary physical facilities, trained teachers and educational materials.

(e) Girls' enrolment in schools at all levels remained low.

(f) There were differences in the performance of schools located in the remote and hill districts, and those in the urban areas.

In 1980 the government announced a series of changes but they failed to meet the demands of the country and the aspirations of the people. To eradicate the deficiencies and to synchronize the national goals of education with national economic plans, the government formulated several policies, but these did not have any impact.

In the present context of the country, the national goals of education need to be reconsidered. The suggested changes include the

following:

(a) Democratizing education by extending the educational facilities all over the country, especially in rural areas and remote regions;

(b) Promoting national integration by adopting a common curriculum; and

(c) Giving a vocational and technical bias to education.

The secondary schools of Nepal are organized and operated under the rules and regulations of HMG. All schools are provided grants-in-aid. The residential schools, which charge high tuition fees, do not get financial assistance from the government. Generally, Nepali is the medium of instruction. At the end of their schooling, students are required to take the SLC examination which is the terminal external examination conducted by the SLC Examination Board, the Ministry of Education and Culture.

There has been considerable expansion of secondary education during the past three decades. Secondary schools in Nepal have to fulfil three purposes:

(1) To prepare students for higher education;

(2) To prepare teachers for primary schools; and

(3) To prepare middle level graded manpower for the world of work in the local community.

As secondary education is a terminal stage for a majority of students, two factors that are considered in the secondary education curriculum are:

(a) Imparting adequate knowledge and skills; and

(b) Providing basic knowledge in the selected discipline areas to students, so that they can have an adequate background required for higher education.

The objectives of secondary education, as laid down in the Seventh Five-Year Plan, are "to prepare citizens capable of making contributions to all-round development of the country, and to impart basic knowledge for obtaining higher education."

In the context of the political changes that have taken place in Nepal in the last few months, the new National Education Commission is expected to review these objectives.

Even though attempts are being made to make secondary education more fruitful and productive by changing curriculum and texts, by providing necessary training to the teachers and by changing the policy of establishing secondary schools in every nook and corner of the country, there are still a number of problems which have made it necessary to consider changes in secondary education.

The provision of free secondary education has been incorporated in the manifesto of the present government. The commitment of the new government to provide free education up to class X within the next five years has been widely welcomed. Free education has been extended up to class VI from this fiscal year, and it is expected that one class will be added almost every year to achieve the objective within the stipulated time-frame.

In order to make the government's present education policy meaningful in practice, schools in areas which are without them at present would need to be provided. They will have to be provided within an accessible distance.

Nepal is one of the least developed countries. For national development, a lot of semi-skilled and skilled manpower is urgently required. The introduction of vocational and technical courses at secondary level are an imperative.

New Zealand

Introduction

In Aotearoa - New Zealand, most children attend a pre-school (Play Centre, Kohanga Reo, or Kindergarten). Primary Schooling is for eight years (sometimes split 6-2) from age five. Secondary education is for five years, compulsory to age 15, with only 80% and 60% reaching the last two years.

By comparison with other nations represented at this seminar, Aotearoa-New Zealand's education is highly secular, and avoids specific moral, religious, or political positions. Words like "proper", "good", or "right" often lead to someone asking, "In whose opinion?" There is great freedom of thought and action at the local school and individual levels. In many ways, this has been enhanced by the abrupt change in educational administration which has occurred over the last two years.

Major Changes (Economic, Socio-Political, Cultural)

In the full report, 26 changes are noted. Five key ones are:-

- **Changes in families** (more urban; smaller; often single parent; working women; less religion; impact of TV culture; technology);
- **Significant economic decline and growing unemployment** (0 to 10%);
- **Increasing Maori political voice** (Treaty of Waitangi emphasis);
- **Changing perception of ourselves and the world;**
- **Increasingly divergent individual views** (new ways of thinking).

Major Educational Developments

Fifty years ago, Aotearoa - New Zealand established a broad general education. This was evolving steadily, applying new educational thinking, using new resources, and responding to new needs. It can justly be said that the country has developed a world-class education service.

As society changed, various education reviews were set up. Many excellent ideas were developed, but were only partially implemented by successive governments. By the middle 1980s, with rising unemployment, education was seen as not doing a good enough job. In 1988, the Picot Committee reported on educational administration, and within months, the government's policy book "Tomorrow's Schools" appeared. The new system began in October 1989, first with the new autonomous school structure, and now, with curriculum and assessment changes.

New Education System - "Today's Schools"

The new education system in Aotearoa-New Zealand covers all levels. The key aspects are:-

- Schools (pre-school to secondary) form the basic structure.
- Each has a locally-elected Board of Trustees (mainly parents).
- Each school produces a Charter comprising a National Framework, and local goals and objectives. The national part of each Charter includes goals for curriculum, community partnership, equity, Treaty of Waitangi, personnel, finance and property.
- Government funds schools directly for their operations.
- The policy is to fund teacher salaries directly too, but at this time Government is only moving to a small trial in 1992.
- Boards are responsible for employing teachers, and for their conditions of service, under the Employment Contracts Act (1991).
- Only building development and major maintenance remain under direct Government control.
- There are audit and review agencies to check on the use of funds, and on the performance of the institution. Each school is responsible for the performance of the teachers.
- There were parent support agencies, but economic constraints have led to these being cut recently.
- Opportunities were set up for parents to teach their children at home, or for groups of parents to establish new schools.

Although this system provides much local autonomy, the Charter still includes a national curriculum. This is being reviewed right now, and a recent discussion book ("The National Curriculum of New Zealand"), has set out a Framework comprising:-

- **Principles** (learning theory and practice, different strengths and needs of groups in New Zealand, requirements of New Zealand society and its economy in the world marketplace, prior knowledge, understanding and expectations of the individual student);
- **Essential Learning Areas** (language, mathematics, science and environment, technology [includes computers], social sciences, the arts, physical and personal development);
- **Essential Skills** (communication, numeracy, information, problem-solving and decision making, self-management, work and study, and social);
- **National Curriculum Objectives** (setting achievement levels);
- **Assessment Methods** (diagnostic, classroom, national monitoring).

It is essential that the curriculum is seen in the context of the whole delivery system, and of assessment procedures.

Secondary Education

The present curriculum includes a common "core" for the first two (and to some extent, three) years:-

English (language, written and oral, literature, media, etc.);
Social studies (past/present, family/community, other cultures);
Mathematics (arithmetic, algebra, geometry, trigonometry, new ideas);
Science (biology, chemistry, physics, geology, astronomy);
Physical Education (health and fitness, skills, games)

Schools usually widen the curriculum through optional courses:-

Art and Music;
Commerce (economics, accounting, typing, shorthand, etc.);
Computers either as a course of study, or as a tool;
Home economics, clothing, family care;
Language Studies (Maori, Pacific, Asian, European, etc.);
Outdoor Education (camping, classroom extension, etc.);
Technical (graphics and design, technology - all materials).

All secondary schools include both academic and vocational sides. However, some schools heavily emphasize the academic side and produce good examination results. Some influential parents like to send their children to these schools. Schools are expected to compete. This may not be to the good of education as a whole.

Theoretically all secondary schools are teaching to the same aims, objectives and curriculum. However, many syllabi have become far too full. Schools are also expected to provide education relating to:- drugs, family life, leisure, driving, work, unions, transition, etc. Schools have to make selections of what they will teach. Therefore what is actually taught varies a great deal from school to school, and for individuals within each school. To add to the variety, some schools are strongly student-needs based, and guidance-oriented, whereas others focus on the curriculum, examinations and sport. (See previous paragraph.)

Evaluation and Future

The following are the participant's personal views:

We have a world class education service (and must not lose it).
Our education service has not satisfied our people lately.
We must educate to meet international challenges.
We are only just beginning to focus on national development.
Education is only one key to the future. Social structures also matter (e.g., industrial legislation and welfare rules).
Our new education system is open to easy alteration by governments (which may be good or bad educationally).
A strong minority can have an undue impact on a local school.

New schools will be set up (especially religious and Maori). There will be more diverse types of schools, but within a given school, what is taught may be narrower.
Highly successful, exam-oriented schools may have too much influence on curriculum development.
The exam system is focussed on a narrow range of objectives. It does not encourage diversity. It is not future oriented.
Just as many businesses fail, so will some schools.
(But, will this be for the best future-oriented reasons?)
There is a moral dilemma for governments as to whether to give extra funding on an equity needs basis, or to reward schools which are "successful". (But, what is success?)
The new NZ Qualifications Authority is encouraging a move to modular courses. They are also encouraging a long overdue move away from norm-referenced assessment, to achievement-based.
Curriculum development is now by contract, but will fail unless it is "owned" by teachers through a return to wide consultation.
There will be a blurring of the secondary-tertiary interface.

The real strength of the new system lies in its potential to respond to the diversity of expectations and hopes which exist in Aotearoa-New Zealand.

Pakistan

1. Major economic, socio-political and cultural pattern

The Islamic Republic of Pakistan emerged as an Islamic ideological State on 14 August 1947. It is predominantly a Muslim State. The Constitution of the country guarantees the rights and practices to other religions. Quaid-e-Azam, the Founder of Pakistan, was an inspiring example of socio-political and socio-economic pragmatism. With a multi-socio-cultural system, Pakistan constitutes an integrated nation - unity within diversity. The socio-political history of Pakistan during four decades - fifties to eighties - has undergone tremendous changes. But, the changing patterns have maintained Pakistan's traditional objectives, i.e, Islamic ideology, Democracy and Modernization.

Pakistan's economic policy stems from the national ideology. The national interest is vital for determining the goals and objectives of economic policy. The perennial national objectives include: promoting the abiding overall national interest; ensuring national integration; securing sovereign security and independence; promoting socio-cultural, economic and political development; facilitating an open, progressive and a balanced Islamic State as Islam prepares man and society both for now and the hereafter. Looking towards the challenges of the 21st century, Pakistan's economic policy genuinely aims at seeking self-reliance through resource diversification, indigenization, privatization and local generation of resources. Its economic planning is moving towards attaining the futuristic goals for national development with reference to the following:

a) Human resource development and manpower planning - especially the human mind, attitudes and personality - tripartite aspects, through the instrument of education. The institutions of Islam - Zakat and Iqra are

being diverted to human resource development;

b) Natural resource development - agriculture and mineral;

c) National defence, ensuring sovereignty;

d) Sustainable development for a sustainable society;

e) Science and technology, especially local, indigenous and appropriate technologies to ensure self-reliance and self-employment.

2. Major educational developments

Pakistan inherited an elite system of education. It was highly selective in character. A common core of vigorous curriculum, controlled by the universities, prevailed in the pre-independence period, preparing the school graduates either for university education, to a few, and the others for running the British administration. The diversification of education at the secondary level was realized in principle in 1936-37 Abbot and Wood Report. The recommendations formed an integral part of the Sargent Report (1944) which finally recommended bifurcation of composite matriculation course with academic (arts) and the technical component. The recommendations could not be implemented due to the emergence of World War II, and soon the country gained independence in 1947.

Since Independence, five major educational policies (1947, 1959, 1972, 1979 and 1990), in addition to seven Five-Year Plans (from 1950 to 1993) incorporating the major reforms envisaged in the policies brought about several reforms from primary to university education systems. The Founder of Pakistan, Quaid-e-Azam Mohammad Ali Jinnah, in his message to the first Educational Conference (1947) gave a positive directional goal to education. Imparting right-type of education suited to the genius of the people, consonant with the history and culture, scientific, vocational and technical education, to respond to the growing needs and conditions of the modern age constituted the essence of his message. Education based on the Islamic conception of universal brotherhood of man, social democracy, and justice, formed the major recommendations of the report.

The second major education policy (1959), in fact, gave a detailed analysis of the issues, and formulated both intensive and extensive recommendations for the system as a whole. This included recognition of secondary education as a terminal stage, restructuring 12-year general education, creation of new structures of secondary schools (comprehensive, pilot), and developing Boards of Intermediate and Secondary Education for conducting external public examinations. Separating them from universities, and diversification of courses (science, humanities, vocational) formed the major recommendations of the policy. These were largely implemented. The third cycle of education reforms commenced in the light of 1972 education policy. Equalization of educational opportunities, and reducing disparities and imbalances between various types of education and across the socio-economic groups leading to an egalitarian society, constituted the guidelines for education reform. Introduction of ideological and cultural-based education for preservation of Islamic values, massive shift from general to agro-technical education, integration of scientific, technical and vocational

education, compulsory teaching of mathematics, biological and physical sciences formed the focus of secondary education. The 1979 education policy deeply focussed on ideological education, inculcation of the spirit of Islam and national integration. Introduction of three-tier system (elementary, secondary and tertiary), and encouragement of the private sector, formed the main features of the policy.

The current education policy (1990) has taken a substantial review of education, including: education of a sizeable population of educated manpower; reducing disparities; balancing equity and quality; imbibing the spirit of Islam; privatization of education; and increased participation rates. These form the framework of the policy. At second level of education, the policy focusses on diversification of streams for qualitative change, improving delivery systems of education, emphasizing scientific, technical and computer education; and vocationalization of secondary education. For determining the creditability of examinations and standardization of tests and results, the policy envisages setting up of a National Testing Service, as an autonomous institution.

A review of the goals, aims and objectives of education in general and secondary education in particular, establishes a core set of common elements which include: recognition of secondary education as a complete stage, a strong ideological base; integration of various structures with wider diversity, stress on science and technical education, reducing disparities; and increasing the participation rate.

3. Future Programmes

Pakistan is an ideological nation. The contents of the ideology are basically two fold: inculcation of the values of Islam by redefining the concept of knowledge for 'Righteousness'; and national integration. This will essentially constitute the core curriculum. Education is conceived as: assessing social problems associated with high population growth; reducing socio-economic disparities; achieving high rates of participation; and accelerating scientific and technological pace of development. To respond to the future needs of the 21st century, the role of education in general and secondary in particular will continue to be vital. The major programmes during the decade for improving the quality of education include: setting up of 'creative activity' laboratories in schools and colleges; making curricula of science, technical and vocational education more relevant; production and dissemination of enriched materials and training; standardization of examination results through the National Testing Service; providing mobile teacher training units and mobile science laboratories, introduction and reactivation of guidance and counselling cells in secondary, and higher secondary education; and developing alternate and specialized training programmes for improving development of the staff of training institutions, curriculum centres and testing services through inter-institutional management, for example, linkage of the National Bureau of Curriculum with a British university. For increasing participation rates, similar programmes on a quantitative scale, have been envisaged during the planning period: such as establishment of 19,000 new schools, and 100 colleges; upgrading of 300 secondary schools to higher secondary level, upgrading of 253 training colleges; and the establishment of 1,000 each of health care centres and community development centres in high schools and colleges. Involvement of Non-governmental Organizations (NGOs)

forms the key feature of the existing plan. Providing computer facilities in technical, vocational, and general schools, as well as teacher training institutions, constitutes the major input in the institutions.

Papua New Guinea

1. Introduction

Papua New Guinea gained Political Independence from Australia in 1975 and adopted the Westminster System of Government. Since then the country has had a democratically elected national government with each of the twenty provinces having its own elected provincial government.

The nation's economy is based on agriculture, fisheries, forests and minerals. There are exciting developments of additional mineral ore and oil production. The poor road and transport infrastructure makes communication and linkages between the rural areas and the urban centres difficult, and is a severe impediment to the development of an effective education service throughout the country.

About 80 per cent of the population live in rural areas and 20 per cent in urban or semi-urban areas. The annual population growth rate is estimated at approximately 2.3 per cent.

2. Educational Structure and Administration

The administration of education is vested in a number of authorities: Provincial Governments, church education agencies, local-level governments and permitted private organizations.

Primary Education (grades 1-6), Vocational Centres, Technical Schools, and Junior Secondary Schools (grades 7-10) are established and administered by Provincial Governments. The National Government is responsible for providing teachers, curriculum materials and textbooks, monitoring standards through inspections, planning for and establishing national high schools (grades 11-12), Teacher Training and Higher Education (Teacher's Colleges, Technical Colleges, Agricultural Colleges and Universities). A College of Distance Education is also administered by the National Government.

Universal primary education is central to the Government's priorities. It is anticipated that there will be increases towards the attainment of universal primary education by 1999, involving raising enrollments from 413,089 in 1990 to about 633,390 by 1991.

The essence of the Government's education strategy is to:

- improve access to and the quality of literacy, numeracy and national awareness;
- support the development of relevant community and national development skills and attitudes;
- increase movement towards universal primary education and 4 years of post-primary education for all by year 2010;
- rationalize and increase the effectiveness of tertiary institutions in

meeting future manpower requirements for both the urban and rural sectors of the economy.

3. Secondary Education Developments

Secondary education continues to be a privilege for a minority because of limited accessibility for primary school graduates to enter high school. In any one year, only about 35 per cent of grade-six graduates are promoted to secondary schooling. The biggest problem is the inadequate financial support available to provincial governments, and other agencies which have direct responsibilities administering secondary education.

The education system is under severe pressure for change particularly at this level. These pressures are the result of: a perceived lack of relevance, unrealistic expectations, many youthful products of the education system becoming disruptive rather than furthering national development, school leavers having little interest in or skills for development of their local communities, low standards of basic literacy and numeracy, and poor social, spiritual, and ethical development.

These problems have resulted in attempts to develop more community-based secondary education alternatives through the Skulanka System and community secondary education. In the main stream high schools, the "day high school" programme was intended to foster lower costs and more community involved secondary provision. Efforts were made to modify curriculum content to suit the needs of rural development, and schools were encouraged to adopt policies of self-reliance and community involvement. General teaching was developed and a major project (Secondary Schools Community Extension Project) began to add relevance.

In the 1980s, there were concerns over the standards of education. Several major enquiries were conducted to consider issues such as the quality of teaching, the level of staffing, appropriateness of the course content, the apparent alienation of students from their communities, the high value accorded to academic education and the corresponding low status of practical and vocational education.

During the 1980s, a major Education 3 Project was developed with assistance from the World Bank. This project provided for both an expansion of secondary education and a range of qualitative support mechanisms, including development of a range of textbooks in academic subjects, support for in-service teacher training, expansion of the secondary inspectorates, provision of maintenance, ancillary staff and library grants.

Despite the marked expansion in access to secondary education, however, there is still a great need, and much also needs to be done, to reorientate the secondary curriculum to meet the present needs of the students and the nation.

4. Secondary Education Policy in the 1990s

The aims of the national government are:

- to modestly expand secondary education to improve access;

- to provide relevant secondary education for approximately 75% of the children who will grow up to remain in their rural and semi-rural communities;
- to provide relevant education to the 25% of the children who will find paid employment in the slowly increasing government, business and service industries;
- to provide relevant education to a small number of children, who have the ability to perform at top international standards; and
- to provide relevant education to a small but growing number of landless urban youth who have no villages to return to and no prospects of employment in an urban situation.

A recently completed major review reaffirms the goals of the National Constitution and the philosophy of providing an "integrated education curriculum" at all levels of education.

Major findings of the review call for all seven year olds to be given the opportunity to receive education in a language they can speak, for provision of a range of types of lower and upper secondary education, for increased access at both levels, for most children learning at a more mature age, for recognition of the importance of vocational education in national development, for provision of linkages between vocational secondary education and higher levels.

Although the report has been favourably received by the government, it is highly unlikely that these changes will be successfully implemented. It will depend greatly on the financial support that the national government will give.

5. Future Strategies for Secondary Education

As Papua New Guinea moves towards the 21st century, the aim of providing more secondary places for large numbers of primary school graduates, making the curriculum content more relevant, improving the quality of secondary education, preparing students for further education and training, and providing diversified forms of secondary education, remain central to the government's priorities.

Any new policy initiatives and directions in secondary education will need to take account of issues such as the quality of education, unemployment, rapid population growth, need for more highly skilled manpower, problems of urbanization, and the social demand for secondary education.

Philippines

1. Major economic, socio-political and cultural changes as bases of educational reforms

Education has to adapt to the emerging socio-economic, political, cultural and technological changes in the country. The Philippines, like any other Asian country, is confronted with problems of development. For year 1990-91, it has a low GNP of $725 per capita, a huge foreign debt of $29.4 billion with an inflation rate of 14.9% and supporting a population of 63 million

Filipinos. It was placed under Martial Law for 20 years, and unto the Aquino administration after a revolution dubbed as the "People's Power of 1986". The administration of the first woman president in Asia, President Corazon C. Aquino, went through many crises: the thrice-aborted coup-d'etat, a series of calamities, for example, the Killer-Quake of 16 July 1990, followed by the deadly eruption of Mt. Pinatubo in June 1991, which wrought destruction to the Central Luzon region. A great majority of the towns and cities which were dollar earners are now buried by "lahar", which has turned these places into waste land.

This era also witnessed the rejection of the American bases by the Philippine Senate. The peace and order problem is still a great concern of the government.

In its elementary and secondary schools, the Philippines registers the following indicators (Year 1990-91):

		Elementary	Secondary
1.	Participation rate	99.28%	59.29%
2.	Survival rate	68.94%	79.03%
3.	Dropout rate	7.05%	12.01%
4.	Achievement rate	57.59%	

2. Major educational developments, including changes in policies, programmes and strategies

There have been a number of reforms in education intended to achieve the goals of equity in, quality of, and access to education. The most important law enacted was Republic Act No. 6655 granting free secondary education, thus improving the participation rate by 3%. It nationalized all "barangay high schools" (public rural/village high schools). Lately, President Corazon Aquino signed into law, the Local Government Code, and at the same time Secretary of Education Culture and Sports Isidro Carino declared "Full Decentralization" of the Department, devolving certain powers from the central office to the regional and to the division offices. It is hoped that with the reorganization of the school system, development will be facilitated. In the same vein, the government also started subsidizing private secondary and higher education levels.

To effect quality and excellence, a system of accreditation was adopted by the private schools. Values education was not only integrated, but was also taught as a separate subject in the elementary and secondary levels.

3. Secondary education developments

The present Philippine Secondary Education Development Programme (SEDP) evolved from 2 programmes:

1) The 22 Plan adopted in 1960, which classified the secondary graduates into college-bound and vocational-oriented graduates; and

2) The Revised Secondary Programme replaced the 22 Plan in 1973.
Its goals and objectives were set as follows:
(a) continuation of general education in the elementary;

(b) preparation for a vocation; and
(c) preparation for college.

Financing this plan was a major problem in its implementation. Inadequacy of curriculum and instructional materials, and the lack of qualified teachers with appropriate major or minor were hindering the programme. Compounding the situation were the evident misconception of government thrusts inclusion in the curriculum, the drastic use of the Filipino language as medium of instruction in many subjects, and the repression of certain rights and freedom under Martial Law. As a consequence, the valuing attitudes of students were hampered. It greatly affected their interests, attitudes and behaviour.

3) The Education Act of 1982 revised the objectives of secondary education to include:
   (a) the development of the cultural, socio-politic, physical, moral and spiritual aspects of the individual;
   (b) the development of his sense of belongingness to a national community;
   (c) the development of his intellectual and work skills;
   (d) the development of his values for a meaningful utilization of his skills and/or preparation for tertiary schooling.

The objectives were brought about by existing problems and changes that the Philippines was facing in its economic, social, political and technological conditions. There was a demand for redesigning the curriculum. Thus was born the New Secondary Education Curriculum, which has as its legal basis the Amended Constitution of 1987, under the incumbent President Aquino.

Funded by the World Bank Loan, the Secondary Education Development Programme (SEDP) redefined its goals, which are for general education. That is, they are content, values, productivity and technology-oriented. The primary aim is for high school students not just to master particular bodies of knowledge, but also to develop values that will qualify them for college and/or gainful employment. Under this curriculum, gainful skills are provided, but such skills are considered pre-vocational. Occupational skills could be acquired either from on-the-job training, or through a more advanced post-secondary technical and/or vocational training. The SEDP is a four-year programme using the bilingual policy of both English and Filipino. It identified 4 project components to develop, namely: (1) staff development; (2) physical facilities; (3) science equipment; and (4) instructional material development.

Some salient features of the New Secondary Education Curriculum under the SEDP are:
   (a) It is student-centred and community-oriented. The organization of content is multi-disciplinary.
   (b) It is cognitive, affective, manipulative-based.
   (c) Values education is treated as a separate subject.
   (d) It emphasizes critical thinking and promotes creativity and productivity at all levels.

4. Anticipated changes in aims and goals in secondary education

The recent signing into law of the Local Government Code and the decentralization of the Department of Education, Culture and Sports, and the organization of an autonomous region among the Muslim provinces in the Philippines are signals towards further reorganization of the administrative and supervising line-up, and giving more elbow room for adaptations to local conditions. Planning will be from the bottom up, and more and more decisions will take place at the lower levels.

Free secondary education in public schools and the subsidy for private secondary schools under the Educational Service Contracting Scheme will provide more access to high school students. However, due to natural calamities which hinder development, subsidizing private schools will burden and affect the public school performance. Access and quality remain to be the challenges of the 21st century.

Secondary education objectives for general, vocational and values education will be the three-corners on which a strong programme can stand. The three aims/goals make a rounded secondary programme. One should not be sacrificed for the other. Teachers' welfare will centre on salary.

The advances in technology and science will revolutionalize certain strategies and will open up more courses towards technology, arts and science, along with vocational training.

Television, radio and other audio-visual aids from business and other agencies will complement textbooks and other classroom strategies that poorer schools cannot afford. There will be closer ties between government and non-government agencies in providing secondary skills. The Parent-Teacher Association will provide the necessary linkages.

On the Asian-Pacific relations, more activities will be planned not only for educators but in upper secondary schools for youth development and peace and understanding. It is expected that UNESCO/UNDP will continue to facilitate the strengthening of relations among nations of the region.

Republic of Korea

Major economic, socio-political and cultural changes domestically and internationally, have influenced the direction of educational development in Korea. Thus, educational reforms have been introduced to enable Koreans to cope with these changes and to prepare them to adapt to a changing society.

In the last four decades, school curriculum have been revised several times. Korean education has expanded and improved in quality, providing opportunities for individuals to realize their potential and contribute to the manpower needs of the nation.

Generally, the 1940s and 1950s laid the groundwork for democratic education and prepared the common people to live in a democratic society. The 1960s and 1970s can be called the era of economic development when enormous quantitative expansion was made in education. In secondary schools,

vocational education was much stressed.

The 1980s saw an improvement in the quality of education. With the development of life-long education, the curriculum of secondary education was much diversified. During this period, lower secondary (middle school) education became compulsory in rural areas.

In 1990, the Ministry of Education included its educational plan as a part of the Seventh Five-Year (1992-1996) Socio-Economic Development Plan. This plan could be of much importance in preparing Koreans for the twenty-first century. The plan forecasts a society moving towards internationalism, high-technology, democracy, decentralization, and diversification.

The increasing stress on an open economy makes the change towards democracy in its industrial and economic system unavoidable. The change in ideology requires that Korea prepare for the unification of north and south. Highly advanced technology and industry demand that education produce highly skilled human resources. Also, the economic and political climate has created a more diversified society and it needs to have people who are more self-disciplined and possess strong individuality.

Aims, goals and objectives of secondary education

Bearing in mind the socio-economic and political situations, secondary education aims to prepare students to serve the nation. As prescribed in the 'Educational Act' and the 'Guiding Principles' of school curriculum, the goals of secondary education are as follows:

(1) To develop physical and mental strength, as well as to cultivate a mature self-image and good character in response to rapid physical and mental development;
(2) To foster morality through experiences in group activities; to cultivate the desire to contribute to national development, and to encourage concern for the welfare of all human beings;
(3) To acquire basic verbal and mathematics skills which encourage further learning as well as logic and creative thinking abilities, and to apply these skills practically;
(4) To understand basic principles of natural and social phenomena, encouraging the development of information processing and scientific investigation skills;
(5) To foster the ability to appreciate beauty and to express the appreciation, leading to a rich emotional life;
(6) To cultivate individuality, leading to a wide range of interests and concerns;
(7) To acquire practical skills for living, leading to a satisfying future life, suited to individual aptitudes and encouraging continuous self-education.

Assessment and evaluation

Although few people have criticized the goals of secondary education, the professionals in education have discussed quality problem areas which have hindered the attainment of these goals.

The competitive entrance examination for universities and colleges makes the curriculum of the upper secondary levels (high school) common and uniform, and fail to challenge the varying abilities of students. Teaching and learning is knowledge-oriented and does not develop the creativity of the students.

The traditional Confusian value which respects scholars has discouraged parents and students from applying for vocational schools, and operates against producing human resources for the basic industries.

The low priority accorded by the government to education in terms of funding has resulted in school facilities falling behind the movement towards societal modernization. The over-populated classes lessen the effectiveness of the teaching and learning process, and qualified persons tend to avoid the teaching profession.

The challenges ahead

While trying to resolve these problems, Korean educators see new challenges, and acknowledge that it is necessary to identify these challenges and what they imply in terms of what needs to be done in education as we approach the twenty-first century.

Today's education focuses on mass production, and an individual student tends to lose his or her identity amid the vastness of a school and the society. The proliferation of information is another feature of our modern society which students need to handle in the future.

The direction of educational reform should be guided by what it aims to produce. In Korea, the aims are to develop the whole person, creativity, and to prepare for the future. Another observation made is that educational contents should become more relevant, and teaching methods more effective.

Singapore

Introduction

1. Educational initiatives in Singapore are typically guided by the following considerations:

   (a) Cultural, such as the teaching of the mother tongue and moral education to help preserve the multi-ethnic and multi-cultural fabric of Singapore society;

   (b) Socio-political, as in the teaching of English to forge a common working language among its multi-racial communities and the provision of a wide range of extra-curricular activities to help build well-rounded healthy individuals;

   (c) Economic, as in the introduction of technical/vocational education to provide support to industrialization and the teaching of English to readily plug into the scientific/technological know-how.

2. The location of Singapore in a vibrant part of the world and its policy to maintain an open economy make these three factors dynamic in nature. As a result, educational changes occur regularly. One major development in the late 70s and early 80s was the introduction of streaming at the end of Primary 3 and beginning of Secondary 1. This sought to minimize wastage of our valuable and only natural resource - human talent - by providing for differentiated pace of learning. By the end of 1991 and by 1994, first and second-level education, respectively, will again be refined to meet the needs of the future. The refinement at the second-level will be described later.

Second-level Education

3. Second-level education in Singapore comprises a first stage of 4-5 years of secondary education, and a second stage of 2-3 years of pre-university education. The more able pupils progress at a faster pace and take 4 years to complete the first stage, while the slower learners are given an extra year to complete their GCE 'O' Level education.

Aims and Objectives

4. The Second-Level, as with the first, aims to educate a child to bring out his greatest potential, so that he would develop into a good person and a responsible citizen. The system continues to emphasize bilingualism and is flexible, allowing streaming and providing a wide range of curricula options from Secondary 3 onwards.

5. The second-level has the following specific objectives:

# to minimize educational wastage	This is achieved through streaming and lateral transfer
# to inculcate in pupils desired moral values	Pupils are taught Moral Education
# to cater to the physical, personality and aesthetic development of pupils	Pupils participate in Physical Education and Extra-Curricular Activities
# to provide quality education	This is achieved through the school curriculum, facilities, resources, teachers as well as principals
# to produce manpower with the requisite skills for the economy	Pupils are equipped with knowledge and skills necessary for the economy

Secondary Education (2nd Level 1st Stage)

6. Pupils are promoted to Secondary 1 if they pass a major examination at

the first level, known as the Primary School Leaving Examination (PSLE). Presently, about 86% of the same-age cohort proceed to Secondary 1. Based on their PSLE performance, successful candidates are streamed into the following three different courses for secondary education:

Special Course: This course is offered to the top 10% of pupils who passed the PSLE and gives the brightest pupils the opportunity to learn two languages, English and the mother tongue, at first language level. Pupils take 4 years to complete their secondary education. At the end of Secondary 4, they sit the General Certificate of Education 'Ordinary' Level (GCE 'O') examination.

Express Course: The Express course is for pupils who have done well in the PSLE. Unlike the Special course, pupils in the Express course will offer English at first language level and the mother tongue at second language level. Pupils will complete their secondary education in 4 years and will sit for the GCE 'O' Level examination at the end of Secondary Four.

Normal Course: The Normal course, which is either a 4- or 5-year course, is for pupils who need a slower pace of learning. Like the Express course pupils, Normal course pupils also offer English at first language level and mother tongue at second language level. However, unlike the Special and Express course pupils, the Normal course pupils sit for the GCE 'Normal' Level (GCE 'N') at the end of their fourth year.

For some pupils, the GCE 'N' level examination marks the end of formal schooing. For others who satisfy the requisite promotional criteria, based on their performance in the GCE 'N' Level examination, a fifth year is provided to enable them to continue their studies and sit for the GCE 'O' level examination at the end of the year.

7. Lateral movements between courses are provided. For example, pupils in the Normal course may be transferred to the Express course if they perform well at Secondary 1 or 2. Lateral transfers give flexibility and permeability to the system.

Pre-University Education (2nd Level 2nd Stage)

8. Admission to pre-university is based on the pupils' GCE 'O' Level results. About 25% of the same-age cohort proceed to pre-university education. However, not all bright pupils choose to have pre-university education and a number in fact opt for diploma courses in the polytechnics and continue from there to the university. Of the pupils who pursue pre-university education, the more academically able will enrol at the junior colleges, which provide a two-year programme preparing pupils for the GCE 'Advanced' (GCE 'A') Level examination. Other eligible pupils will enrol at the pre-university centres and centralised institutions which run three-year programmes leading to the same examination. Normally, pupils who pursue pre-university education

aspire for tertiary studies at the universities.

Assessment of Current Goals

9. Current goals and objectives of second-level education have served Singapore well. It has reduced the dropout rate significantly and raised the attainment level of secondary pupils. However, under the present education system, about 14% of the same-age cohort would only have first-level education. While the majority would receive some level of vocational training, and the rest go into direct employment, they lack the requisite standards in English and mathematics which will become more important in the future. As the nation edges closer to the 21st Century, it would be necessary to refine second-level education at the same time as we improve on the first-level education. The revised second-level structure will be fully in place by 1998.

Second Level Education After 1993

10. Secondary education will be made available to all pupils so as to provide our children with at least 10 years of general education - 6 years in primary and at least 4 years in secondary. This will help raise the overall educational level of our young by providing opportunities, in particular, for the academically less able to progress up the educational ladder. This will, in turn, permit further upgrading of Singapore's future workforce.

11. The new features of the second-level education, to be implemented gradually beginning in 1994, are:

    (a) The introduction of the Normal (Technical) course with a curriculum which is technical/vocational-oriented. The existing Normal course will be renamed Normal (Academic).

    (b) Pre-university education will be focused at the junior colleges.

Sri Lanka

1. Major economic, socio-political and cultural changes which became the bases for educational reforms

The introduction of Buddhism in the 3rd century B.C. brought in a long-period of cultural and educational development mainly through the temple schools. The Portuguese and the Dutch who occupied the maritime areas in the 16th, 17th and 18th centuries started missionary schools mainly to propagate Christianity. The British who occupied the whole country from the early 19th to the mid 20th century started state schools and assisted the missionary schools in the English medium mainly to train the personnel needed for the lower rungs of the administration. For this purpose they started the Department of Public Instruction in 1869. A few elementary vernacular schools too were allowed.

On the eve of independence (1948), the then Minister of Education Kannangara introduced a number of far-reaching reforms in 1945. He started a number of English-Medium, Central Schools in the various districts that hitherto had no secondary schools, and made education free to the pupils who were selected by a scholarship examination at grade 5. In fact education for the pupils was free from year one up to the university final examination. The university of Ceylon was started at about this time. After Independence more and more secondary schools were started and the medium of instruction was changed to the mother tongue. These steps opened the flood gates and the state took up the responsibility for education by taking over most of the Assisted Schools. This brought in an increase in the number of Technical Schools, Teacher Colleges and Universities. All these steps increased participation and produced a very large number of educated youth without corresponding economic development to absorb them into employment. This youth frustration was one of the major factors for the youth uprising in 1971.

2. Secondary education development

To make education relevant to national needs, the new government of 1970 brought about a number of reforms. The streaming of pupils into science, arts, etc. at the end of grade 8 was done away with, and a general comprehensive curriculum for all pupils at the second level leading to the examination for the National Certificate of General Education at the end of grade 9 which replaced the earlier grade 10 GCE 'O' level programme. All pupils studied the mother tongue, English, science, mathematics, social studies, religion, an aesthetic subject, and two pre-vocational subjects. Though this increased opportunities (e.g. schools teaching science and mathematics increased from 778 to over 5,000), it was not matched with sufficient facilities and teachers. The pre-vocational studies programme received severe criticism as it was introduced without due preparation. The grade 11, 12 GCE 'A' level programme was replaced by the grade 10,11 Higher National Certificate in Education programme which introduced two new subjects, cultural heritage and project work. The new government of 1977, while retaining the general comprehensive curriculum, reintroduced the GCE 'O' level examination at the end of grade 10 and the GCE 'A' level examination at end of grade 12. Pre-vocational subjects were replaced with technical subjects and the project work and cultural heritage were scrapped at 'A' level. A quality improvement pilot programme was conducted with UN assistance and the new subject "Life-skills" replaced technical subjects in grades 6 and 7. The structure was changed to 5-year primary, 6-year secondary and 2-year collegiate programmes.

The Curriculum Development Centre was enlarged to an autonomous National Institute of Education. Special emphasis was laid on school management and the inspectorate was replaced by a school cluster management and a supervisory system. The administration was decentralized; free textbooks and a free midday meal were introduced.

In 1987 the power of the Centre was devolved to the 8 Provinces. Each province had a Council with a Provincial Minister of Education. The Centre continues to be in charge of policy and overall responsibility, while the Provinces were mainly in charge of implementation.

From 1978 the state has been providing free textbooks up to the end of second level, and from 1989 free midday meals to all pupils.

3. Current goals, aims and objectives

The main thrust at the second level is that while quantitative expansion must be maintained, quality and equity must also be improved.

(1) While expanding the teacher education programmes of the Colleges of Education (pre-service) and Teacher Colleges (in-service), a crash programme of Distance Education has been launched to train over 40,000 new teachers within 4 years. The University and the NIE have increased postgraduate teacher courses.

(2) Positive discriminating programmes to improve the quality of plantation and other disadvantaged sections have been launched with foreign assistance.

(3) Special supplementary education programmes in science, mathematics and English, using the media, have been prepared.

(4) Non-formal literacy education programmes are available to meet the needs of the non-participants/early leavers of the formal system.

(5) Programmes of non-formal skills training to provide school leavers with short-term vocational training, are offered.

(6) A special Year 9 compulsory technical course to be followed by Year 10, 11 technical courses leading to a new technical stream for advanced level. Also there is an alternative ladder for those who opt to go into Technical Colleges, non-formal programmes or employment, leading up to a Bachelor of Technology.

(7) Legislation has been passed to set up School Boards to develop responsibility for management of schools to parents, teachers and well-wishers.

(8) A national Education Commission of eminent educationists has been set up. It will advise the President on the formulation of national education policies and prevent adhoc policy changes.

Thailand

During the last decade, Thailand had undergone rapid changes caused by technological advancement, modern communication network, and contacts with the world community. These changes have brought with them certain implications on the Thai society:

1. Economic and social implications

Thailand is being transformed from an agriculture-based to manufacture-based country, with a strong service sector. The instantaneous flow of information changes a nation's lifestyle.

2. Science and technology implications

Because of the advancement of science and technology, the people have become more dependent on imported technology. Also the mass media is affecting the daily life.

3. Values and spiritual implications

The Thai society has become more urbanized and open, resulting in easy and rapid transfer of culture. Spiritual beliefs have become more varied, while morality suffers a decline.

4. Political implications

People's lack of understanding about civic rights and duties in a democratic system has resulted in irresponsible political behaviour and insufficient political participation.

5. Environment implications

Industrial growth and expansion of farmland have brought with them pollution and other environmental imbalances.

6. Demographic structure implications

Successes in family planning and advancement in medical science and public health have caused a decline in both birth and mortality rates.

These significant changes have focused attention on human development, i.e. the development of an individual, so that he/she will be able to cope with constantly changing socio-economic and cultural conditions. The current education system, drafted under the socio-economic and cultural conditions of the mid 1970s, no longer serves the needs of the national development goals of today. Its objectives and approaches must therefore be revised, and made more effective in the world of change.

Aims and objectives

Education in Thailand is aimed at developing the population in two respects. In human terms, it aims at developing the intellectual and ethical qualities, basic abilities and potential. In development terms, it should impart to the learner knowledge in basic sciences, social sciences and the humanities, as well as occupational skills.

The principles of educational organization

To achieve the above objectives, educational organization should be based on the following principles which should be fully integrated:

1. Accessibility and equity, at all levels and for all types of

education;
2. Equilibrium, enabling the learner to develop a balance between the intellect, morality, basic and potential capabilities on the one hand, and knowledge and occupational skills, on the other;
3. Harmony, so that education would respond to national socio-economic conditions and to all levels of society;
4. Diversity, in its form, content and method so that the learner can chose to study according to his aptitude, abilities and interests.

Approaches in educational organization

The following approaches are recommended in the forthcoming National Education Scheme:

1. Restructuring the educational system, emphasizing

   (a) flexibility, better linkage between formal and non-formal education, and lifelong education; and
   (b) learning network, to enable the transfer of knowledge to the learner without interruption.

2. Teaching/learning content and process, using both modern technology and folk knowledge, and with the content that is conducive to the development of a total being.

3. Administration and management of education, focusing on decentralization of educational administration and management, sharing of the organizational burden, and mobilizing and reallocating resources.

The Seventh National Educational Development Plan (1992-1996)

To translate the new educational concepts and approaches into concrete action, the National Education Commission has drafted the Seventh Plan, which focuses on eleven major directions:

1. Developing quality so that the learner can cope with social changes in the future;
2. Promoting science and technology for national development and environmental conservation;
3. Expanding educational access;
4. Extending basic education to the lower secondary level;
5. Establishing a learning network which is more flexible;
6. Organizing education in response to labour market's needs;
7. Promoting academic excellence and autonomy in higher education institutions;
8. Improving the teaching force;
9. Decentralizing educational administration and management with wider participation from local authorities, and cost-sharing by tertiary students;
10. Promoting private education at levels higher than basic education, or in response to group interests;

11. Developing the information system for educational planning and efficient organization.

Implications of the Seventh Plan on secondary education

Based on the framework of the Seventh Plan, the objectives of secondary education are:

1. Secondary education, especially the lower level, shall be basic education for all.
2. The learner should be capable both academically and vocationally.
3. The learner should abide by the principles of the nation, religion and monarchy and adhere to democracy under a constitutional monarchy.

The Department of General Education, in charge of state secondary education, has laid down the following educational policies as guidelines for educational planning and organization:

1. Education for human resource development;
2. Science and technology education;
3. Expansion of educational access to lower secondary level as basic education;
4. Learning network (Life-long education);
5. Education for the world of work;
6. Improvement of teaching staff and other educational personnel;
7. Administration and mobilization of resources for educational development;
8. Information system for educational development.

Quantitative and qualitative targets

By the end of the Seventh Plan in 1996, the Department of General Education expects to enrol 764,140 students in grade 7, or 65 per cent of all primary graduates in that year.

And under the same plan, 20 projects have been formulated for the improvement of educational quality.

In the future, Thailand hopes to universalize secondary education, so that free secondary education will be accessible to all students.

Viet Nam

1. Major Economic, Socio-Political and Cultural Changes

Educational development in Vietnam has been disrupted by other events. Reforms were initiated at the time when the long war of Resistance for Independence had just ended and reunification was achieved. Immediately after the proclamation of the education reforms, the northern border war broke out. Ever-increasing difficulties appeared. Social and economic problems became

even more serious due to the deep-rooted impact of the protracted war over 30 years and the unplanned, poor, state-budget subsidies and non-dynamic economy.

With a population of 70 million and an annual population growth-rate of over 2.13%, there is increasing pressure on education.

Since 1987 new socio-economic policies of the multi-component market-oriented economy have been another influence on education. Business-people and cooperative workers can now earn more money than government officials. This has meant lessened learning motivation. New requirements mean further educational reform.

2. Major Educational Developments

Some data on general education

Year	Schools	Teachers (Female %)	Students (Female %) Thousand
1976-77	11,788	336,400 (62.1)	10,831,1(46.7)
1980-81	12,038	356,800 (62.2)	11,830,7(48.0)
1985-86	13,536	413,800 (67.2)	12,203,1(48.0)

General education consists of three levels, the first and the second levels comprising basic general education. First level involves 8,583,050 children(85% of those of school age). Currently there are 4,634 First level schools, 1,880 Second level schools, 7,942 basic general schools and 1,083 third level schools. The reason for separating 1st level schools from basic general schools is to facilitate universalization of 1st level education. There are 4 provinces and cities recognized as having reached national standards for literacy and first level universalization.

Minimum standardized "curricula" for first-level universalization was prescribed. On the basis of this, three curricula for first level of education were compiled: the 165-week curriculum is used for the normal 1st level schools, the 100-week for older and disadvantaged children, the 120-week for minority children in highland and remote areas. Nowadays the network of 1st level schools has reached most communes and even hamlets, and the network of 2nd level schools has been spread to every commune.

All 1st level schools are public, most 2nd and 3rd level schools are national but some localities are experimenting with several semi-public and private schools. The country is experimenting with differentiated 3rd level schools and classes. Besides schools, 100 centres for polytechnic education-career orientation have been established.

There were, in 1990, 242 vocational schools (119 national, 123 local), and 212 vocational centres at the district level (among which there are several private) which admitted those students who had vocational aspirations. The students are trained for 135 universal jobs.

3. Assessment and Evaluation of the Current Goals, Aims and Objectives of Secondary Education

The socio-economic changes during the last ten years have revealed inappropriate aspects in the goals and objectives of education and training, in particular of secondary education.

1. The objectives are not completely suitable to the requirements of the economy.

2. The schools are not yet diverse enough to meet the learning needs of children. The education system is non-flexible and there is no linked flow between cycles (levels) II, III and vocational schools.

3. The scale and network of schools are not yet appropriate, particularly for vocational and skill training. There are not yet national standards for training a cadre of workmen who have technical knowledge responsive to economic needs.

4. Almost all school investment comes from the government budget; the potential contribution to education development of the community and society is not sufficient.

4. The Direction of Changes in Goals, Aims and Objectives

A. <u>New Affirmation of Goals, Aims and Objectives</u>

The new aim of general education, specially for the secondary level, must be:

1. To form and develop harmoniously the personality of Vietnamese students with the national characteristics as a firm basis for training and fostering the intellectual and manual skills of a workforce which has knowledge and skills responsive to the needs of society. To develop students who are endurable and dynamic with a deep longing for fruitful labour to bring a better life to others, their families and themselves, and who have adaptable competencies to suit a multi-component and open market-oriented economy.

The general education system must create favourable conditions for each student, and develop to the full his/her ability and aptitude as a future citizen so that he/she can satisfy the need to earn one's living and at the same time undertake regular self-learning and self-training or continue his/her study at higher level.

2. To structure general education from creche to secondary school including normal schools, aptitude schools, vocational schools and schools for disabled children. This structure must be diversified and flexible to suit the different forms of management such as formal and non-formal, state and semi-state, community-based and private schools (for skills training) and to suit the development of a market-oriented economy in the Vietnamese context;

3. To develop an education which is practical and provides different types

of schools to directly meet diversified needs and differences and at the same time to ensure modern knowledge and skills in the fields of science, technology, humanism, vocation and training.

In general, the purpose of Viet Nam's new secondary school level is either to provide the students with knowledge of culture and science so they can enter university or high school when they have the opportunity, or to provide them with technical knowledge and vocational skills to seek employment.

4. The structure of general education and the various types of schools must ensure universal lower secondary education where possible.

B. New Proposed Structure of the Secondary Education System; Goal Aims and Objectives of Every Level, on the threshold of the 21th century

1. The new general education system comprises two main levels: primary and secondary. The current general basic education level should be divided into primary and lower secondary.

Grade 1 to grade 5 should be called the elementary education level. It is the fundamental level. By law it will be the compulsory level till the year 2000. In comparison with the current first education level, it will be more complete and independent. It has the task to prepare those who do not have the chance to enter higher level to take vocational training courses.

2. Grade 6 to grade 12 should be called the secondary education level and include two sub-levels: lower secondary (from grade 6 to 9) and upper secondary (from grade 10 to 12).

Lower secondary education should provide basic general knowledge and skills (including simple vocational skills) so that those who complete it can enter employment if they do not have the opportunity to continue their study in the upper secondary school or vocational or professional schools.

Upper secondary education should provide good general knowledge of science and culture, and skills for students. The new upper secondary school will have 4 streams: Math-Physics, Experimental, Humanitarian and Technical (Industrial, Agriculture, Service).

The full secondary school level will consist of lower secondary schools, upper secondary schools, the technical secondary schools and vocational secondary schools.

3. Beside the formal education system, there should be non-formal education from primary level to secondary level, especially with some kinds of combined study-work programmes, or different kinds of professional schools, collective or private (for six months, one year, one and a half years). These schools of the non-formal type will make the general education system more flexible, dynamic and effective, and appropriate to the new market-oriented economy.

4. The new lower and upper secondary schools should provide students

with different levels of technical knowledge and necessary skills so that they can find jobs and continue their study.

Chapter II

Major Socio-Political, Economic, Cultural and Educational Developments: Their Implications for the Goals, Aims and Objectives of Secondary Education

In the presentation of their country reports, most of the participants of the Regional Seminar took note of the major socio-political, economic, cultural and other significant developments in their countries which became the main bases of educational development, changes and reforms, including changes in the goals, aims and objectives of secondary education. In the hope of arriving at a more realistic regional perspective, some of the crucial issues arising from such major developments are discussed in this Chapter.

A: Socio-Political, Economic, Cultural and Other Developments

Socio-Political Developments

There have been a number of socio-political developments in the 17 countries represented in the Regional Seminar. These are briefly discussed on pages 50 to 57 of this Chapter.

Fostering national unity. This is particularly true for 13 countries which have experienced colonial rule, where 'divide and rule' was a deliberate policy exercised by many of the colonial powers to govern the various communities in society. These countries, especially in the initial period of independence, have sought to introduce the spirit of nationhood into their school curriculum, with textbooks written by national experts. Various countries too have sought to implement the national language(s) as a medium of instruction in place of the former colonial language, so as to give high prominence to the mother tongue(s) and inject pride in the national language(s). This gives greater access to education for all. Research shows that children learn better when the mother tongue is used.

Providing an understanding of the democratic processes among the populace. For a number of countries, the building of modern democratic political institutions is a relatively recent development. Many countries have sought to inculcate an understanding of rights and duties which citizenship in a democracy requires. At the secondary level, this is done through civics, social studies and values education and by encouraging discussion and student participation.

Promoting a basic level of literacy. All countries realize the importance of basic education for both human and economic progress. Many have made it mandatory for children to be educated up to at least first-level education and have thus instituted mass education. In more and more countries, education up to at least the lower secondary level is encouraged, if not made compulsory. Non-formal literacy education programmes are being organized to attain universal literacy where formal programmes alone are found to be ineffective.

Preserving the various cultures of a pluralistic society. There has been a growing awareness of the need to value the many cultures of each

community in society. At the same time, there is consciousness within each community in society of the need to preserve its own cultural heritage. The plural nature of most societies and the need for its preservation has to be recognized. The national culture has to evolve and develop through the process of education. Provisions have been made for this, and are being expanded in education to meet the needs of various communities. The teaching of school subjects in the language of the particular community is one instance of such provisions. The teaching of literature in secondary schools to include experiences of the various national communities, is an example of the effort to preserve various cultures in society.

Recognizing the changing role of women in society. Women are entitled to equal rights. They have an important economic role to play. They should have access to all aspects of secondary education, including vocational education. Conversely, boys as well as girls, should have access to education that helps equip them for their roles in the home and family.

Economic Developments

In all countries represented at the Regional Seminar, education has endeavoured to respond to the changing demands of the economy for an appropriately prepared workforce. However, it is obvious that no country is yet completely satisfied that it has found the optimum solution to gearing schooling to the demands of a developing economy, and there must always be some reservations about whether too much emphasis on the economic purposes of education will detract priorities away from other equally important purposes in educating children.

The kinds of vocational education offered must be in accord with the needs of the society, i.e, its development stage, whether it be agricultural, pre-industrial, industrial or technological. One of the goals of education should be to prepare young people for the world of work, but it must be preparation for the kind of work they are likely to find when they leave school. Some countries have experienced problems when schools produce too many people who are "over-qualified" for the work that is available. Hence the nature of vocational preparation needs to be based on the development stage of the economy, but this should not preclude innovative programmes such as training in small business development or making traditional crafts the bases for cottage industries. Nor should it inhibit anticipation of development needs so that the skills are available when required.

There is considerable acceptance of the proposition that education has been a major factor in the improved economic performance of many Asia-Pacific countries. The 1988 United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) survey revealed that countries of the region achieved an average growth rate of 6.5% between 1981 and 1986, 7% in 1987 and more than 8% in 1988. Some rapidly developing countries exceeded these figures, particularly in East Asia, e.g., for the Republic of Korea it was about 11% in 1987 and 1988.

It cannot be assumed, however, that the relationship between education and economic development is simple and direct. Rather it is complex. There are countries which have raised educational levels significantly, without

reaping the benefits of increased economic wealth. Obviously other factors are important and there must be a balance of factors, including improved education, if economic growth is to be achieved. Economic growth is also self-generating in the sense that growth creates wealth and some of this wealth can be invested in further improving education which then helps further development.

The overall average statistics of economic growth should not obscure the reality that about 500 million people in the Asia-Pacific region live in poverty, earning less than US$370 per annum, and many millions of these live in conditions of absolute poverty, i.e, with income less than US$275 per annum. In addition, some countries have experienced natural disasters of major proportions. Man-made disasters, such as the Gulf War, also had disastrous effects, and these are partly reflected in the overall decline of the growth rate to 5.4% in 1990. This figure is still fairly high but should not be viewed as indicating a satisfactory state of affairs. For many countries the attainment of universal primary education is still a distant goal, and secondary education for all is not yet a realistic target.

There are demands in every society that there should be an equitable distribution of the gains from development. The pressures and needs for restructuring of societies for social justice is particularly strong in societies where the vast majority of people live in conditions of poverty. Education alone cannot solve this problem. But it can certainly try to inculcate attitudes which will lead to society tackling the problem and provide opportunities for all to develop their full potential so that they can work effectively to improve their own circumstances.

The acknowledged need for education to serve the needs of the economy is not without problems. There are other priorities for education, and a balance of these with economic priorities must be achieved. School education has been successful in preparing the academically talented for higher education, and this excellence, e.g., in mathematics and science, must not be lost while meeting the legitimate demand for skilling a majority so that they can satisfy the needs of employers. Schools have to meet both needs as well as optimize the talents of all students across the full range of abilities, interests and aptitudes. Technical and vocational education must receive priority currently because we have not yet managed to achieve a satisfactory level of success in providing this alternative. Major obstacles to the success are low prestige attached to such alternatives and the lack of avenues for them to proceed to further/higher education.

There is also the problem of determining just what sort of vocational preparation is best. Generic skills seem called for as job specific skills quickly become redundant in a rapidly changing world. There needs to be a dialogue between business and education in order to define the skills, attitudes and orientations needed so that schools can then develop coherent programmes to prepare their students for employment. This dialogue can be developed in a host of ways and should be genuinely two-way, i.e, while education learns more about business, business should come to better understand the work of educators. Joint councils, consultations, exchange programmes, work experience, sponsorship, industry adopting a school, and such like can all contribute.

Some reservations must also be expressed as to just how closely business and education should be aligned. The school has an overriding obligation to serve the interests of the child within the guidelines established by society. Discharging this responsibility means pursuing priorities which are not exclusively oriented towards employability. The priority in business is generally to generate profits. This priority might not always sit comfortably with the school's obligations to society, parents and the child.

Restructuring of the economy is a current concern of many countries in the region. Many countries now see open and free markets as a means for improving their economic prosperity. Government policies have given them basic infrastructures which they now want to build upon through free market mechanisms which have been so successful elsewhere. Education must be ready to serve the needs of the restructured economy, particularly as it moves into the more demanding technology-oriented phases, and also to promote developments in industrialization, trade, agricultural productivity and expanding service industries.

In some countries, the application of the free market philosophy to education is viewed as a means of increasing efficiency and effectiveness. Already there is some evidence of this in some countries. Schools are being encouraged to build individual identities, to market themselves, to be entrepreneurial, and to compete. Non-government schools are encouraged, and allowing parents real choice amongst a range of schools for their children is a growing movement. The administration of schools is increasingly being devolved so that they run themselves as virtually independent units. Where student numbers are declining, schools that are less successful in attracting students are being closed. Business is sometimes seen as providing a model for school management. Departments of Education are being reduced in size as schools are expected to use funds provided to purchase the services they want rather than have supplied to them the services a department thinks they should have. School communities are being given greater power over their schools which then must be responsive to the needs and requirements of the community. Governments are often content to set the objectives and let the school decide on the best ways of attaining them, but insist on measurable results to demonstrate that the objectives have been achieved.

In countries that are still trying to achieve education for all, open market philosophies are viewed as inappropriate. The continuance of the so-called public (private) schools in these countries are perceived as a major source of perpetuating inequality in society as well as in education. The main strategy in these countries is to provide an education of a comparable quality to all by building a common school system. Education is also viewed as a major instrument for building a more equitable social order. Any support for open market philosophy in education in these countries will be contrary to the entire thrust of educational developments in these countries.

Socio-Cultural Developments

Far-reaching changes have taken place in social and cultural life in every part of the region. There is an awakening of the deprived and disadvantaged to their rights, and an assertion by various ethnic groups of their rights to their own self-identity. Among the major developments in most parts

of the region are the changes in the role of women in society and their demand for empowerment through education and a rightful place in every sector of national life and at every level. While there is a general recognition of the ideal of egalitarianism in social life and of cultural diversity and gender equity, education will have to play a crucial role in promoting awareness about them as well as in actualizing them.

Societies have become more diversified and complex as a result of new occupations created by industrial and technological developments and new service sectors. These developments, more complicated in the case of the industrially developed parts of the region, will increasingly become a common feature of every part of the region even though there will be many variations.

The industrial and technological developments within societies have led to changes within the family and other social institutions. It has brought about the need for workers (and in some countries whole nuclear families) to move into the cities and away from the extended family. Where the worker (usually father) has moved away, this has led to more responsibility being placed on the mother to care for the rest of the family left behind. In the case of the nuclear family moving away from the extended family, the support and controls of the extended family are lessened and more responsibility is placed on the nuclear family to cope by itself. In either situation, work is changing the lifestyles of families.

These developments require a rethinking of the education systems, not only as a response to the changes which are and will be taking place, but also hopefully, as an active force influencing the direction of changes.

The changes in cultural life have been equally far reaching. In countries that emerged into independent nationhood during the past few decades, there have been concerted efforts at renewing and revitalizing the traditional cultures. This is evident from the attention that traditional art forms, both folk and classical, have received in almost every country, and the growth of interest in national languages. Education has played a major role in some of these developments, particularly in the growth of national languages and literatures. Inter-cultural contacts have enriched every country's culture and, in many cases, have facilitated the popularization of art forms which had their origins in other parts of the world. 'Internationalization' of culture is a new and significant development and international cultural exchanges in the fields of music, dance, art, cinema, theatre, and festivals have become a common feature of cultural life. The mass media, particularly the highly modernized communication media, have played a crucial role in promoting inter-cultural contacts.

While all these developments - the revival and revitalization of cultural traditions and inter-cultural contacts - have found some reflection in the educational programmes (and there is a need to do more), there is another aspect of cultural development that every society and every education system will have to contend with. This is particularly related to the mass media, specially the electronic media. While these media have made accessible to everyone, even the illiterate, news, ideas, and information of various kinds from different parts of the world, and have opened up vast avenues for social, cultural, educational and economic development and for promoting

awareness of crucial social issues, they have, at the same time, opened up possibilities of manipulating ideas and attitudes of millions of people by those who control these media. There are dangers of an unhealthy trend towards 'homogenization' and 'corruption' of cultural life, and promotion of 'consumerism' (because of the heavy dependence of these media on advertising).

The promotion of mass culture has been another area of concern. [The term mass culture is used here in a pejorative sense to distinguish it from high culture, the culture of the elite or even from folk culture. It has also the connotation of a culture which is mass produced commercially and consumed passively.] 'How to achieve popularization of the arts without their vulgarization, the diffusion of culture without its dilution and debasement' are among the questions that societies and the education systems have to contend with. The role of education will be particularly crucial in promoting a critical analytical attitude towards the information and messages transmitted through the media. While some of the problems created by the media are common to every country, they are particularly serious in countries that do not have the resources and technologies to develop their own media and their own programmes. In many of these countries, the domination exercised over the media by some countries is viewed as 'communication imperialism' and 'cultural imperialism'.

The guiding principles for dealing with some of the major questions that have emerged in political, social, economic and cultural life of the region have been evolved by the international community, particularly through the Universal Declaration of Human Rights and the International Covenants on Economic, Social and Cultural Rights and Civil and Political Rights. These principles need greater reflection in the educational policies and programmes than has perhaps been the case so far.

Other Major Developments

International Understanding, Co-operation and Peace

The period of decolonization in post-World War II history is also the period of the growth of internationalism. The world has become integrated in a way it had never been before, and there is an awakening 'to a sense of world community' in which all are inescapably involved, sharing a common destiny as never before. This is generally expressed in metaphors such as the concept of global village or the world as a space ship with all of us on board. Perhaps nothing has so completely brought forth the indivisibility of the world as the development by the human species of the instruments for its total destruction. International peace and disarmament which alone will guarantee peace, have been the major concern of every country. The resources which peace and disarmament would release for development, including educational development, would be enormous. Military expenditure in 1990 is estimated to have been about US$950 billion and it is said that, to achieve education for all, including secondary education for all, by the year 2000 would need only US$49 billion. A far greater amount than this was spent during the last war in West Asia.

The danger that humanity faced to its very survival during the past

four decades seems to have ended with the ending of the cold war and the initial steps that have been taken in the direction of disarmament. These trends are, hopefully, irreversible and will, again, hopefully, be followed by the solution of numerous regional conflicts. The creation of a world without war would open up immense possibilities for finding expeditious solutions of other major world problems. The promotion of international understanding, co-operation and peace has been an objective many countries seek to reflect in educational programmes. This needs to be pursued more vigorously with an increasing focus on not only the preservation of peace - and peace need not be seen as only the absence of war - but also on disarmament, which would make vast resources available for development.

Development, Population and Environment

Three issues which have been highlighted by many countries are development, population and environment. These issues are inter-related and need to be seen in the world context and as world problems. Economic forces, science and technology, new information systems and various other factors have brought about the 'integration' of the world, but they have not created an equal world. There are vast disparities in the levels of development of the highly industrialized countries and of those in which the process of industrialization was initiated very late, generally after they gained their independence. These disparities have increased in recent years. The per capita GNP in the most economically advanced countries, according to recent estimates, was over US$10,000, while in the low and middle income countries, it varied from US$240 to US$700.

The population of the world is currently estimated to be about 5.8 billion. Seventy per cent of this population live in the developing countries (or the Third World countries) and a vast majority of them live in conditions of poverty. At the present rate of population growth, the world population by mid-21st century is likely to be between 12 and 14 billion. Will the planet earth be able to support this vast population? Development and population are closely inter-related. By and large, populations in developed countries have stabilized. The bulk of the prospective increase in world population during the coming decades is going to be in the countries of the Third World. This will further widen the gap between the developed countries and the rest of the world unless the pace of development in the developing countries is accelerated. Present-day international economic relations are recognized as being unequal, reminiscent of the colonial relationships, and there have been international efforts at articulating strategies for building a more equitable international economic order.

Another related issue is that of environment. The kind of economic development that has taken place during the past century, the pace at which it took place, and the conditions under which it took place, have led to a dangerous depletion of natural resources, including those of the Third World. The depletion of resources has been accompanied by environmental degradation. Polluting the environment - rivers, oceans, atmosphere, soil - has posed a danger which is comparable to the one posed by nuclear weapons, for it leads to the destruction of everything that makes life possible - not only human life but all plant and animal life. The problem of environment is a local and national as well as an international problem. Pollutants in the

oceans and in the atmosphere recognize no national boundaries, whatever be their place of origin, and the 'greenhouse effect' affects the entire globe. The world may be moving towards an ecological disaster unless urgent steps are taken at every level to prevent it.

All these issues are inter-related, and they are all also connected with international understanding, co-operation and peace. The promotion of international understanding, co-operation and peace is no longer a matter of good intentions, but an imperative of existence. The promotion of international perspectives will need to be addressed by education systems and become one of the guiding principles in educational development and reform at every stage of education.

Science and Technology

The development of science and technology has been one of the most significant factors in economic development and in improving the welfare of the people. They are growing at an increasingly fast rate in the developed countries. In some developing countries, their rate of growth is extremely slow and their dependence on the developed countries is increasing. While every country pays increasing attention to science education, they are hampered by the lack of resources.

Alternative low-cost strategies have been articulated in many countries focusing on science as a creative human activity which can be learnt and developed by making use of the immediate environment as a laboratory. Modern communication technology is also being increasingly used. While the use of computers in education varies from country to country, introduction of computer literacy forms a part of educational programmes in almost every country. The expansion of science and technology have also created many problems when they have been divorced from human and social responsibilities. Many countries are giving importance to this aspect of science and technology education in their educational programmes.

Value Systems and Values Education

Every country in the region has expressed its concern over the erosion of cherished social and cultural values which has taken place mainly as a result of the process of modernization. An increased stress is being laid on moral/ethical/values education in every country's educational programmes. However, while there is much concern over the erosion of traditional values, there is, at the same time, an extension and widening of the entire conceptualization and perspective of values education. All countries, for example, emphasize the development of scientific attitudes, of a rational outlook, of humanism. Many countries also perceive appreciation of diversities, and promotion of equity, gender equality, environmental consciousness, and an international outlook as essential components of the programmes in values education.

B: Secondary Education Development

In this section, the participants of the Regional Seminar noted issues raised by various countries. Where there were some commonalities, conclusions were drawn, and recommendations are made.

Each country should read these recommendations in the light of its own national development goals, educational goals, economic position, and other special circumstances.

Major Changes in Educational Policies

The Regional Seminar took note of the changes and the causative reasons for the changes in the goals, aims and objectives of secondary education. The Regional Seminar was fully conscious of the fact that the goals, aims and objectives of secondary education have changed, mainly, as a result of new demands on education arising from economic, socio-political and cultural changes. The major educational developments and changes are embodied in countries' constitutions, educational development plans, and policy documents, such as the major ones cited below:

Educational development plans, and policy documents

Australia	-	1989	National statement on goals for schooling (Australian Education Council, AEC)
		1991	The Finn Report "Young People's Participation in Post Compulsory Education and Training"
Bangladesh	-	1974	Education Commission Report
		1988	Education Commission's Report
China	-	1985	State Education Commission was set up
		1986	Law on Nine-year Compulsory Education of the People's Republic of China
		1991	National Instruction Plan of Nine-year Compulsory Education (Draft) (A Ten-Year Educational Development Plan is being prepared)
India	-	1964-66	Education and National Development (Report of the Education Commission, which still remains the basic document of educational reform)
		1986	National Policy on Education (adopted by Indian Parliament)
Indonesia	-		National philosophy of Pancasila (Five Principles)
		1945	Constitution
		1989	Education Law
Japan	-	1991	Concerning Reform of Educational System Responding to New Era - Report of the Central Council on Education
Malaysia	-	1979	Report of the Cabinet Committee
		1987	National Education Philosophy

Nepal	1971	National Education System Plan (NESP)
	1980	Government announced a series of changes
	1991	Set up National Education Commission)
New Zealand	1988	"Tomorrow's Schools", Government Policy document led to a major change in 1989
	1991	The National Curriculum of New Zealand - a discussion document commissioned by the Government.
Pakistan	1990	National Education Policy
Papua New Guinea	1975	National Constitution (five National Goals)
	1983	Education Act; Teaching Service Act
	1986	Ministerial Committee Review (philosophy of education)
	1991	Major review of the Education Sector
Philippines	1982	Education Act
	1987	Philippine Constitution
	1991	The Philippine Congress commissioned a survey on Philippine education to be the basis for educational reforms
Republic of Korea	1949	Education Act
	1990	Seventh Five-Year National Education Plan (1992 -96)
Singapore	1980	New Education System (secondary)
	1991	Report of a Review Committee "Improving Primary School Education" (and consequential changes in secondary education)
Sri Lanka	1981	Education Proposal for Reform
	1991	National Education Commission
Thailand	1977	The National Education Scheme B.E. 2520 (1977)
	1991	The Framework of the Seventh Education Development Plan (1992 - 1996)
Viet Nam	1979	Resolution 14 of the Politbureau of the Communist Party of Viet Nam (CPV) on Education Reform
	1980	Act on Educational Reform
	1986	Documents of CPV Congress VI (new political socio-economic policy; adjustment of educational reform)
	1991	Documents of CPV Congress VII (First priority national policy on science, technology and education)
	1991	Law on Universalization of Primary Education

Secondary education is an integral part of the education system. Major changes in the education system call for corresponding changes in secondary education.

Most of the participants described major developments in their secondary education programmes, along with the changes in the goals, aims and objectives. Some of these developments and changes gave rise to crucial issues

which are discussed below.

Elitism to Equality of Opportunities

There is a definite trend from elitism based on academic achievement to one of equality of educational opportunities in secondary education. Secondary education is no longer aimed at preparing a few for higher education. Instead secondary education aims to promote equality of educational opportunities especially for women and disadvantaged population groups.

In an all-out effort at widening access to secondary education, an additional objective of secondary education has emerged, i.e., to prepare youth for the world of work/employment. In many countries, basic education is now up to at least lower secondary education.

Perhaps, because of the dual tasks, i.e., to prepare young people for higher education, and to equip them for the world of work, in many countries secondary education has been criticized for failing to adequately prepare students for higher education, and for its dismal performance in harnessing the potential of youth for the world of work.

The twin aims of secondary education have further been complicated by the sensitive issue of sorting out students into academic versus vocational streams, which has been aggravated by the stigma associated with vocational and technical education.

In many developing countries, the expansion of secondary education has not been accompanied by the qualitative improvement of secondary education. Among the reasons for this are lack of adequate physical facilities, quality educational materials and inadequate training of teachers.

Recommendations from the Regional Seminar

1. Secondary education should be continually extended through formal or non-formal means, so that it becomes available to all during the next two or three decades.

2. Secondary education should further develop the potential of students both as individuals and as useful citizens. As a result of extending and improving secondary education, there should be an improvement in the quality of life of the people, and an enhancement of the nation as a whole.

Convergence of General and Vocational Education

In most countries, the progress of vocational education has been extremely unsatisfactory. A few studies in some countries have shown that industry prefers general secondary education graduates vis-a-vis vocational secondary education graduates.

Recommendations from the Regional Seminar

3. Secondary education should provide students with knowledge and skills leading to further training and education, and to future

employment. (At the secondary level, students are more able to think for themselves, and it is possible to establish interests, aptitudes, and abilities.)

4. Pathways to vocations and different areas of post-school study should be provided through electives (options) so that all students have opportunities.

5. To be made attractive to students and parents, vocational education:
   - needs appropriately trained teachers;
   - must be relevant to the needs of the economy;
   - must bring industry and commerce into schools (or vice versa);
   - must teach generic skills rather than job-specific skills;
   - must allow movement between formal and non-formal systems; and
   - must facilitate vocationally-educated students advancing into further education.

External Examinations

There is an increasing recognition of the fact that individuals are different - varied in abilities, aptitudes and interests. It has been noted that preparation for examinations leads to uniformity, i.e., a factory type product. One participant felt strongly that "the examination system is a major factor subverting the goals and objectives of education." Yet another participant referred to external examination as the "hijacker" of the lofty goals, aims and objectives of secondary education.

It has also been noted that an achievement type test based only on recall is somewhat obsolete in the context of the shift from an emphasis on low-level thinking (i.e. acquisition of factual knowledge) to that of higher-level thinking (analysis, synthesis, evaluation). The important thing is that assessment should be authentic, i.e., a fair test of what the student should have learned as specified in the curriculum and applied in practical situations.

There are, however, concerns that academic standards will deteriorate even further if external examinations are done away with, and secondary schools will continue to be criticized for not adequately preparing young people for higher education.

Recommendations from the Regional Seminar

6. It is noted that examinations are sometimes used at various points in secondary education (e.g. at entry, at various levels, terminal). Concerns were raised about external examinations at each level. Care needs to be taken to ensure that the process of assessment serves the ends envisaged in the aims and objectives of the nation's education system. Assessment should further the objectives of the curriculum, and not distort them.

7. A full range of assessment procedures should be used to evaluate students' work and achievement. Some examples are:

- ongoing teacher assessment of course work;
- credit for participation;
- use of soundly based industry and commerce examples;
- practical tests;
- aptitude tests;
- oral and aural testing;
- observation of students' behaviour (especially for moral or values assessment);
- student self-evaluation; and
- peer and/or parent comments.

Curriculum-related issues

The curriculum is the main means to realize the goals, aims and objectives of secondary education. There has been a general tendency to have a common curriculum at the first stage of secondary education. This is considered essential for the development of the young person's total personality and facilitate diversification at a later stage to suit the individuals' interests and aptitudes. The number of school offerings has gone up, especially at the upper secondary school stage as attempts are made to reflect advances in knowledge, emergence of new areas of study and the modernization of curriculum.

It was also noted that all countries have a national curriculum which has been drawn up at a central level.

Recommendations from the Regional Seminar

8. Different countries place different subjects in their core curriculum according to their perception of needs. Care needs to be taken to ensure that the core curriculum contains a balance appropriate to the needs of the students and to the needs of the nation.

9. A feature of secondary education is the offering of elective (option) subjects, despite problems of teacher education and supply. National curriculum requirements, core and electives, should leave room for local inputs, thus recognizing the wisdom of local people, and their diverse needs.

Towards Human Development

All countries have underscored the need for secondary education to aim at the development of talent and capacities towards becoming whole human beings. This is consistent with the new concept of human development which stresses, "that the basic objective of human development is to enlarge the range of people's choices to make development more democratic and participatory. These choices should include access to income and employment opportunities, education and health, and a clean and safe physical environment. Each individual should also have the opportunity to participate fully in community decisions and to enjoy human, economic and political freedoms." [UNDP's Human Development Report, 1991]

Although some countries do not mention it specifically, all have geared

their goals, aims and objectives to human development. Evidence of this is the renewed emphasis on development of intellectual skills in problem-solving, critical thinking, judgement, and creativity; valuing the development of living skills/employment skills; and the development of physically fit and healthy citizens.

Recommendations from the Regional Seminar

10. To achieve these goals, the Regional Seminar recognized the need for principals and teachers to be positive examples of the concept of human development themselves:
    - with personal skills in thinking and problem-solving;
    - able to resolve conflicts;
    - valuing creativity and able to encourage its development;
    - aware of, and sensitive to students' feelings;
    - with deep understanding of human development;
    - having knowledge of, and able to apply, learning theories;
    - aware of their own culture, recognizing the worth of other cultures and having empathy towards others' cultures;
    - with understanding of, and able and willing to work towards, the broad aims and objectives of education in their country; and
    - able to contribute to the further development of national educational goals.

    These are wide and deep requirements, and all countries can expect to move only slowly towards the full availability of principals and teachers with such skills and understanding. Teacher education and training, and retraining programmes must include elements of these high-level skills and understandings before significant progress can be expected.

11. Teacher educators will also need training in these skills and values, and in how to train teachers to impart them.

12. So that teachers are encouraged to teach these skills and values in human development, the evaluation of students' work and achievement must include assessment of these areas.

Decentralization, Devolution and Innovation

Decentralization of school management is a growing trend in some countries. Schools are almost autonomous bodies. Their governance is placed in the hands of a locally elected Board of Trustees or School Management Committees, mainly made up of parents.

In a few countries, decentralized or devolved school management has resulted in the emergence of highly innovative schools, which then generate both local and national funding support, thus enabling them to further innovate and be more effective. On the other hand, there is a danger that some schools which for some reasons are unable to innovate tend to be neglected to the detriment of the clientele that they are mandated to serve.

Recommendations from the Regional Seminar

13. Where school control and/or management is decentralized, devolved or privatized, the state remains responsible to ensure that quality secondary education continues to be available for all of its citizens. The state, therefore, must monitor carefully the performance of devolved schools and ensure that each has access to adequate resources.

A Growing Commonality of Goals and Aims for Education

In view of the diversity of the countries in terms of size, population and cultural and historical backgrounds, it is not surprising that there are different emphases in their goals, aims and objectives for education. However, there is also a very substantial commonality. The Regional Seminar established ten major goals which all the participating countries have included, in varying degrees, in their educational intentions.

These ten goals are set out below, with some aims and objectives shown for each. These should be seen as giving an indication only, and are by no means exhaustive. Similarly, the ten goals are not meant to be a fully comprehensive set.

In addition to the commonality, what should be noted is how different they are from a similar listing made, say, twenty years ago or even ten years ago.

Goals for Education in General

1. **Development of the human person**

   - develop capacities, talents, adaptability;
   - develop self-confidence, self-esteem, and self-reliance;
   - develop skills in problem-solving, judgement, creativity and critical thinking;
   - provide for physical development;
   - promote healthy living;
   - cultivate individuality;
   - develop personality;
   - aim for a balanced human being;
   - develop manipulative skills; and
   - aim for a person comfortable in his/her culture, and aware of others' cultures.

2. **Development of productive and responsible citizens**

   - develop positive attitudes for being responsible citizens;
   - develop students as human resources;
   - produce man-power for the economy;
   - provide a wide range of elective (option) courses;
   - encourage diversification; and
   - develop a sense of rights and responsibilities.

3. Development of national unity and sense of nationhood

- promote a sense of national unity;
- develop political awareness and skills to promote national goals (e.g. democracy, socialism, secularism);
- develop the mother tongue(s); and
- develop an awareness of the nation, in terms of its history, its present situation, and its future directions.

4. Upholding values, traditions and cultures of society

- develop values supported by society as a whole;
- develop respect for cultural heritage;
- promote a sound moral consciousness;
- encourage moral and ethical values; and
- support the value of the family as underpinning the society.

5. Modernization through science and technology

- develop awareness of information systems;
- develop skills in information processing and computing;
- increase mathematical and computing skills;
- promote science and technology; and
- plan towards the 21st century.

6. Quality, equity, and access

- develop high standards of learning;
- promote equality of educational opportunity (in respect of women and disadvantaged groups); and
- balance equity and quality of education.

Goals for Secondary Education

For all students at the secondary level, the aim is to further develop and extend the above six goals for education in general.

Because, at the second level, students' individual interests, aptitudes and abilities have become a factor, there is a need for more individualized pathways. These are provided through elective (optional) programmes, and alternative approaches to suit students' abilities.

Secondary education has, therefore, these additional educational aims:

7. Preparation for the world of work

- provide skills for future employment;
- provide career education, advice and counselling;
- encourage skills for self-employment, and entrepreneurship;
- develop a sense of vocation;
- enhance students' aptitudes;
- involve industry and commerce in schools and vice versa, to ensure that teaching is relevant to the world of work.

8. **Preparation for further education**

- provide a sound foundation for future learning;
- prepare for life-long education;
- provide pre-tertiary education for appropriately qualified students, keeping alternative pathways open;
- support non-formal education networks;
- encourage an inquiring mind.

9. **Development of the capacity to contribute to the well-being of the nation (being aware of concerns such as: environmental damage; population issues; drug abuse; social, political and cultural issues)**

- promote the awareness of social equity;
- promote a caring society;
- contribute to planned social change;
- promote the concept of planning and organization;
- promote scientific thinking for problem solving; and
- enable education to contribute towards national development.

10. **Promote international understanding, co-operation and peace**

- develop international awareness;
- promote the resolution of conflict;
- promote international peace;
- encourage co-operation (e.g., through commerce and travel);
- encourage contact with people from other nations; and
- foster respect for human rights.

As a final note, it is important that secondary education works to avoid educational wastage, arising from students dropping out. Relevant programmes, work appropriate to students' abilities, real opportunities to progress further, advice and counselling, and the availability of ways for lateral re-entry to education/school, will help in this process.

Summary

The Asian and Pacific perspective of education in general, and of secondary education in particular, has been presented in this Chapter. Despite some criticisms, it is obvious that education has ably responded to the changing socio-political, economic, cultural and other major developments in the region. Secondary education has changed through the years, and its goals, aims and objectives have been modified to meet the emerging needs of nations and their youth. Towards the end of the Chapter, the current emphases of the goals, aims and objectives of secondary education were presented. The Regional Seminar noted that although there were differences, there were broad and significant commonalities.

Chapter III

Towards Formulating Goals, Aims and Objectives of Secondary Education to Meet the Foreseeable Demands of the Twenty-First Century

Introduction

Socio-political, economic, cultural and other changes have been ever accelerating, especially during the late 1980s, and to which education has responded very well. Among other things, Chapter II describes how education has changed as a result of these and other major developments. In a few countries, education provided directions for these developments. However, in many countries, education has by and large been re-active, generally catching up, mainly transmitting, replicative, and crisis-oriented, rather than being pro-active, pioneering, transforming, creative and innovative, visionary and future-oriented. The Regional Seminar hopes to contribute towards making education a factor that propels development, instead of being the cabhouse/-guard's van merely trailing the development train.

In the presentation of their country experiences, many of the participants of the Regional Seminar noted that more than ever before, education must be visionary and future-oriented, in the face of ever-mounting scientific and technological innovations, emerging socio-economic challenges and opportunities, pervasive socio-political reforms, and renewed cultural reawakening.

This Chapter deals with some of the major future scenarios in Asia and the Pacific as viewed by eminent thinkers from the region. These scenarios are not based on wishful day-dreaming, but rather are an extrapolation from current trends, for somehow the future is embedded in the present. The issue is whether education will simply wait and watch for the emergence of these future scenarios, or does education want to contribute towards shaping them? Raja Roy Singh[1], in his book, Education for the Twenty-First Century: Asia-Pacific Perspectives (1991) states that, "the desire to know the future or to predict its nature and anticipate its likely occurrences stems from the desire to gain a measure of control over it."

Even assuming that there is only so much that education can do to shape the whole gamut of humankind's future, might it not be able to shape its own preferred destiny? Certainly education ought to be able to prepare our young people to meet the foreseeable demands of the twenty-first century. Since the Regional Seminar is concerned with secondary education, what role can secondary education play in preparing young people for the twenty-first century? What ought to be the goals, aims and objectives for secondary education at the threshold of the twenty-first century, in awareness that the secondary school students in the 1990s will be the ones involved in agriculture, industry, business and trade, and the service sector in the forthcoming century?

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1. Raja Roy Singh's book was a synthesis of the deliberations of the 1990 UNESCO PROAP Regional Symposium on Qualities Required of Education to meet the Foreseeable Demands of the Twenty-First Century.

A: Future Scenarios in Asia and the Pacific

From 16 to 18 August 1990, the Asian Centre of Educational Innovation for Development (ACEID), UNESCO Regional Office, Bangkok, organized a "Regional Symposium on Qualities Required of Education Today to Meet the Foreseeable Demands of the Twenty-First Century", in Bangkok, Thailand. In this Symposium, nine eminent thinkers of the region, six of whom are non-educators, presented their views to, and held discussions with the Chairpersons and/or senior members of the National Development Groups of APEID. Most of the latter were Secretaries of Education or Directors-General of Education. The Symposium arrived at a broad range of future scenarios, which have a bearing on the choices that may be ahead in charting the future of education, and education for the future. These are briefly discussed below:

Exploding Knowledge: Science and Technology

Science has become the mainspring of the explosive growth of knowledge, which is estimated to be doubling every ten to twelve years. Science has also been transformed into technology at an astounding pace. While it took many years for electricity to be widely used after it was discovered, shortly after the discovery of silicon chips, there was the information revolution; and the explication of the DNA molecule led quickly to the bio-technological revolution. Discoveries in the field of medicine has led to immense possibilities for human survival. In the developing countries, the average life expectancy increased by over one-third between 1960 and 1990, and is now 63 years. In the developed countries, the average life expectancy is now 75 years.

Chitra Naik, a prominent Indian educator, who was one of the Symposium speakers, said, "...it is science alone that can solve the problems of hunger, poverty, insanitation, illiteracy, superstition, deadening customs and traditions ... halt degradation of human condition ... and bring about socio-economic and political changes conducive to development, to reducing the miseries and stagnation of traditional societies through modernization ..."

Isao Amagi, a well-known Japanese educator, who was another Symposium speaker, pointed out that "increasingly, wealth and prosperity are dependent on knowledge and skill. Developed countries have never been so creative and innovative. They are deluging the world with new products and services based on their brain power and creativity."

Raja Roy Singh, former Director, UNESCO PROAP, who was another Symposium speaker, said, "the developing countries face the challenge of creating for themselves pathways of learning which may lead to the mainstream of knowledge revolution ... Knowledge-based society is one that derives from human potential ... it is about how men think and create and become free. Its core is thinking, creativity and inventiveness."

Miguel Ma Varela, a prominent Filipino, who was another Symposium speaker, observed that "mankind would no doubt continue to seek knowledge through science ... But at this crucial moment ... it may need more wisdom, more humanity than mere technical knowledge."

Kadir Jasin, a well-known Malaysian journalist, who was another Sym-

posium speaker, said "... but the same computer that helps in the designing of the most deadly weapon and simulates death and destruction can also be used to save lives in hospitals, in the air, on the sea and road. .. The choice is ours."

The Changing Concept of Development

The emerging concept of development that is expected to continue to dominate the twenty-first century is not concerned only with growth of the Gross National Product (GNP) or indices of industrial production. It used to be that development was equated with economic growth. It was seen as a set of economic targets to be achieved by centralized planning. "The human beings become economic commodities with skills to market and incomes to acquire." (Raja Roy Singh). The old concept of development presumed that as a country became industrialized, economic growth would ensue, and the benefits would trickle down to the poorest of the poor. Unfortunately, that remained an elusive dream for the bulk of the deprived sections of the population.

The new concept of development now recognizes that the realization of the potential of human beings is the lynchpin of development. Human beings are now at the centre of development, which means development is woven around people, not people around development. According to the United Nations Development Programme (UNDP), the emerging concept entails the following:

1) Development of the people through investment in education, health, nutrition and social well-being of people, so that they can play their full role in the country's economic, political and social life.

2) Development by the people, which implies people's participation in the planning and implementation of development strategies.

3) Development for the people, i.e., to satisfy everyone's needs, and provide opportunities for all.

Individuals should not only contribute to development, but must have a fair share of the outcomes of development.

UNDP envisages that in the 1990s human development will be at the centre stage. Instead of asking how much a nation is producing, the question to ask would be, 'How are its people faring?' An object of concern for the new concept of development is marginalized people. UNDP reports that:

1. Over one billion people live in absolute poverty.

2. Some 180 million children, one in three, suffer from malnutrition.

3. One and half billion people are deprived of primary health care. Nearly three million children die each year from immunizable diseases. About half a million die each year from causes related to pregnancy and childbirth.

4. About a billion adults cannot read or write. Well over 100 million children of primary school age are not in school.

5. Disparities between men and women remain wide, with female literacy still only two-thirds that of males. Girls' primary enrolment rates are a little over half that of boys, and much of women's work still remains underpaid and undervalued.

The Emerging Interdependent World

A dominant feature of the twenty-first century is the growing interdependence of mankind. Nations of the world will irreversibly be interlinked and interrelated. Raja Roy Singh perceives "an expanding process of international production sharing and a global redistribution of labour and industries. Instantaneous communications which command the business offices or penetrate the homes everywhere are breaking down the wall of seclusion and isolation. As the economic production factors become increasingly global, they create the conditions for the exploitation of resources globally."

Peter Ellyard, of the Australian Commission for the Future, who was another Symposium speaker, said, "Much of this globalization process is being driven by ... 'economic pull' which involves the rationalization of economic arrangements on a regional basis, ... slowly increasing co-operative globalism ... Technology is helping to build a single highly networked world. It is already possible for billions of people to participate in a single event (via communication technology) ... Finally, the world is being united by ecologically driven 'fear' ... Around the world this fear of major global ecological problems is beginning to enforce further co-operation between nations ... We are rushing headlong into an era of co-operative globalism while we are barely prepared for it. There is an urgent need for us to create a paradigm of co-operative globalism, or we are all likely to be trapped by problems caused by national identity."

Dr. Prawase Wasi, a Ramon Magsaysay awardee from Thailand, who was another Symposium speaker, said, " In the past people were isolated in cultural pockets. Today, and more so in the future, people are more closely linked into the global community through communication, travels, the market system and the common concern on environment. The latter has no political or cultural boundaries. Cultural differences will and should remain, and the global citizen will have to learn to appreciate cultural heterogeneity, to see the beauty of pluralism instead of reacting with hostility to it."

The Looming Problems

There is an urgent need to deal with the problems that mankind is facing today globally. Hence, it is not always humankind's achievements that define the future, but the problems confronting humankind, such as environmental degradation and unplanned population growth.

Some environmental problems are caused by natural calamities, such as floods, earthquakes, and typhoons. Many countries in the region can only expect more of them in the future. Much of the environmental degradation is a by-product of science, technology and industrialization, often traceable to personal decision and non-acceptance of accountability for one's actions. Raja Roy Singh thinks, "these problems are bound up in various ways with the realm of human attitudes, perceptions and values."

In the twenty-first century, there will be an even more marked acceptance that development must have a human face if it is to contribute to the alleviation of continuing problems such as poverty and the disparity between the rich and the poor, and the degradation of human life-support systems. This means that economic growth can no longer be viewed as an end in itself, without concern for equity and social justice, and for its effect on the environment. The concern is not only what happens now, but also the implications of present actions for future generations. Individual and communal responsibilities and accountability require emphasis, so that self-gratification does not endanger the very survival of humankind. Where economic growth can be seen to have negative effects, these must be weighed against any potential benefits.

It was in this context that the World Commission for Environmental Development report defined "sustainable development" as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Someone said that the environment, including natural resources, is not ours; we are borrowing it from future generations.

The concern for sustainable development will continue to be a global concern in the twenty-first century. Problems of environment, health, the labour market and political empowerment cut across national and geographic boundaries. They affect countries of the region concurrently, though in varying degrees. For example, pollution in, or the rape of, the open seas and fishing grounds around some Asian countries, becomes as much their problem and that of neighbouring countries. The migration of labourers by the thousands to the Middle East and/or developed countries while alleviating their financial status and earning foreign exchange for the mother country, affects social institutions like the family, and could lead to psychological stresses.

Crisis of Human Values

It is generally recognized that change has been happening since the beginning of Planet Earth. However, change of the current magnitude, pace, scope, variety and impact is unprecedented. Most people agree that one of the main driving forces of change in the past, the present and in the future has been, is, and will be rapidly changing science and technology. Science and technology can result in something good or bad for mankind. Most of the modern conveniences which we now enjoy are due to science and technology. However, science and technology have also accentuated the materialistic tendencies of humankind, and have eroded cherished socio-cultural values. Science and technology brought industrialization and modernization in the west. And as industrialization and modernization spread to the east, they carried with them the industrial mentality and/or its cultural baggage, resulting in cultural tensions and/or moral dilemmas in many of our countries.

As of 1990, the military expenditures of developing countries amount to about US dollars 190 billion per year, and yet in their midst, one-sixth of the people still go hungry every day, and 150 million children under five suffer malnutrition. About 1.5 billion are deprived of primary health care;

and 1.75 billion people have no access to safe sources of drinking water. (L. de la Cruz in NIER's Education for Humanistic, Ethical/Moral and Cultural Values.)

Shaikh Maqsood Ali, a well-known socio-economic planner from Bangladesh, who was one of the Symposium speakers, said, "Man's greatest enemy is inside him, not outside. It is relatively easier for man to conquer the world than conquer himself. A man comes into this world for a fixed period. During this period he gives something to the world and he also takes something from the world. If he gives more to the world than what he takes, he becomes a 'net giver'. If he takes more from the world than what he gives, he becomes a 'net taker'."

It is predicted that mainly because of the crisis of human values, the twenty-first century will be much more concerned about education for humanistic, ethical/moral and cultural values. The UNESCO International Symposium and Round Table, Beijing, in December 1989 predicted that the twenty-first century will be a "caring society" characterized by an environment of "learning to care", i.e., caring for self, other human beings, other living things, and the environment; resurgence of ethical and moral values, including religion-based values balanced with rationality-based values (based on science); and the preservation of cherished socio-cultural values, including respect for parents and elders, and social institutions (e.g. family, marriage).

B: Comments on the Future Scenarios in Asia and the Pacific

1. The Exploding Knowledge: Science and Technology

Knowledge is exploding in all areas, but here, we confine our concerns to the exploding knowledge in science and technology.

Science and the wise use of technology will be one of the important keys for solving major problems which the world and each country face. There can be no turning back on science and technology. No society can ignore science and technology and a society which fails to join in the mainstream of scientific and technological development does so at its own peril. Education systems in all countries have to play a most crucial role.

However, it may be useful to remember that the use of science and technology during the past half century has not always been for the 'good', and the 'explosions' that took place were not only in knowledge, but also in other things and have caused much harm. Of course, the harm done also can be mitigated only through science and technology, and not by a return to the pre-scientific age. However, there is a need to be aware that all that happens in the field of science and technology should not be received passively. It is essential to intervene in what use can be made, and is being made, of science and technology.

There is also a need to make a distinction between science and technology - the two are not interchangeable, though in some cases the distinction may be less than clear. Science is knowledge, while technology is the application of that knowledge for specific purposes. Science cannot be denied as knowledge cannot be denied. There can be no restraint on the further study

of the sub-atomic universe, but there can be restrictions on the purposes to which this study is put.

There are already covenants and treaties on certain kinds of experiments and applications. There is the Non-Proliferation Treaty (NPT) and there are appeals against the continuing Strategic Defense Initiative (SDI). Technology of the future, unless humankind can decide what purpose it is going to serve, does not provide grounds for unmixed optimism. Its unbridled growth will not necessarily create a better world.

Technology also needs to be seen in specific socio-political and economic and cultural contexts. The depletion of the earth's resources, depriving future generations of resources to which they have a right, industrial wastes that cannot be disposed of without causing damage to plant, animal and human life, consumerism, and even planned obsolescence of goods produced - all these and many more have been the products of technology in the 20th century. Of course there can be technologies which will not result in such problems, and in this sense the concept of 'appropriate technology' - not primitive technologies for the Third World consumption - is important for the society of the future. This will require, however, a different order of things, systems of control, at the national and international levels, for which the present drive to the universalization of the free market concept may not provide the best possible conditions.

The scenario on science and technology should not be seen in isolation from the socio-political and economic context and the order of things at the international level.

Technology can create, in certain situations, a society of masters (technologists) and human robots.

There is also the question of the social responsibility (in their individual and collective capacities) of the scientists and the technologists. Education will need to take note of all this. It cannot be subservient to the technologist any more than it can be to the businessman. Secondary education will need to continuously renew itself so that the knowledge of science that it imparts is not outdated. However, while imparting scientific knowledge will continue to be an important function of secondary education, the knowledge component will have to be carefully selected (which will require a great deal of hard work by curriculum developers) and the focus will have to shift increasingly to laying the foundations of acquiring knowledge of <u>scientific method</u> as well as <u>scientific thinking</u> (or temper and attitude).

2. <u>The Changing Concept of Development</u>

Some participants of the Regional Seminar had reservations about this scenario. They fully accepted the five points listed with reference to marginalized people, but were quite concerned about how the 'new concept of development' was likely to change this state of affairs. Some were of the view that in the early stages of development when the problems are seemingly insurmountable, very strong leadership is called for. One also wonders if the 'new concept' is not quite consistent with much of the thinking associated with free markets which is based on inequalities in wealth but postulates the standards of all will rise because of the extra wealth generated, i.e., the

rich will get richer, but so will the poor.

Indeed there is much more to the quality of life than material wealth, and the things listed in describing the new concept may be more satisfying to humankind in general. Also, it was pointed out that the premises of the emerging concept appear to be based on the admirable notion of empowering people to solve their own problems in their own context. An example quoted was giving farmers the mechanism to escape from the money-lender trap.

While there can be no doubt that the better question to ask is 'How are the nation's people faring?', there was some doubt expressed as to whether this can really be divorced from the question of how much a nation is producing. Even in developed countries where the basic needs of life are well satisfied, there is not much evidence that people are willing to forego improved material benefits in exchange for other quality-improving factors in life. They do want both but will not, generally, exchange the former for the latter despite quite vociferous urging by a distinct minority. The deprived of the world might well question whether the emerging concept is not simply another device for keeping them in the poverty trap.

There can be no doubt the 'new concept' is most appealing on moral and ethical grounds. Participatory democracy is a laudable ideal. Empowerment of all expresses the aspirations of the true democrat. Everyone can accept that there should be opportunities for all and that everyone's needs should be satisfied. However, the question of 'what needs?' has to be asked. Are we talking about basic needs? But isn't it true that as soon as one need is satisfied, the human develops another? Is it the intention to develop an egalitarian utopia where all are truly equal? Has such ever existed or is it likely to?

Actually, the two concepts of development represent aspects of a division of thought that has existed for as long as we have records. They are really outcomes of two opposed beliefs about the nature of man - whether man is naturally competitive or co-operative, greedy or generous, materialistic or idealistic.

It was the view of some others that the emerging concept is extremely important for the vast majority of the region's populations where basic minimum human needs require urgent solutions and cannot await a quantum jump in GNP, whether through free market or command system. Bringing into focus the concern over the deprived and the marginalized should be one of the major components of every country's educational programme for promoting awareness of this problem for the contemporary world and developing a sense of responsibility and world-mindedness. The study of the emerging concept of development by secondary school students will also develop a critical attitude in the understanding of one's own society, whether 'developed' or 'underdeveloped'.

3. The Emerging Interdependent World

The Regional Seminar concurred with the observations made by the Symposium speakers that the global village is no longer a fantasy. Recent changes in various parts of the world have raised hopes of a world becoming less divided, and increasingly recognizing a shared destiny and the need to shape common goals.

It was, however, pointed out that the world will be truly interdependent only when it becomes an equal world. The existing and the emerging interdependence has many elements which are not of interdependence between equals but are, in some cases, exploitative. The present trends indicate, besides growing interdependence, also the widening of disparities between the 'developed' and the 'developing' parts of the world. These trends need to be halted. This will require an international effort.

Increasing interdependence must not lead to exploiting of one country by another, for example, by providing employment for the workers of the country but demanding access to natural resources or ignoring justifiable wage increases. An interdependent world must move towards raising the standards of living across countries. It must mean a better appreciation of the values of different cultures. It must also mean eliminating unhealthy aspects of nationalism.

Future generations must be adequately socialized into the world community, and schools have a pivotal role in providing an international component in the curriculum that can lead to harmonious relationships between peoples of different nations.

4. The Looming Problems

The Regional Seminar agreed with the serious concern over the problems of environmental degradation and unplanned population growth, and the urgency of dealing with them before they assume unmanageable proportions. The fact that countries are increasingly woven into an inter-linked network means that these problems need to be resolved internationally.

With respect to the environment issue, it is important to consider urgently the necessity of appropriate technology that is environment-friendly. Understandably, it is often convenient to pick ready-to-apply technology despite knowing the detrimental effects it may cause to the environment. Nevertheless, countries must not resort to technology that would give short-term benefits in employment or economic well-being at the long-term cost of degrading the environment and exploiting finite natural resources. Thus, apart from applying appropriate technology, it is necessary to be creative in extending the availability of natural resources for generations to come, through recycling or cutting down on wastage, so as to provide for sustainable development.

The issue of an optimum level of population is one that also needs to be urgently addressed. An overpopulated society would find its resources inadequate to meet the basic needs of its people, let alone elevate their standards of living. Indeed there are situations in overpopulated societies where a large segment of the population live below the subsistence level. Population planning as such warrants immediate attention.

It is clear that education has a crucial role to play in resolving these problems. However, environmental and population studies in the school curriculum must be purposeful and not be reduced to mere factual information. It is a challenge for education to continually evaluate such programmes to ensure that they provide the younger generations pro-active attitudes rather than passive ones. The wider society too must play its role in formulating

sensible social and economic policies to meet the goals of sustainable development and maintaining a reasonable level of population.

It is crucial to make the younger generations aware of the context in which the concept of sustainable development has emerged and its implications for each society and the world as a whole, as well as to recognize the adverse effects of "unplanned population growth" on development, human rights (including rights of the mother and the child) and the quality of life.

5. The Crisis of Human Values

The Regional Seminar was of the view that the optimistic prediction at the UNESCO International Symposium and Round Table, Beijing, that the twenty-first century will be a 'caring society' expresses the deeply felt concerns and hopes of humankind for the coming century. It felt that, notwithstanding the seriousness of the existing state of affairs in this regard, the optimism is legitimate and has a realistic basis. There is a deep desire in the people of this region, and everywhere else in the world, for the human values enshrined in such national goals as, 'social justice', 'preservation of cultures' and 'equality of opportunity'.

It was of the view that the growing awareness of the need for human values would become all pervasive. The process, however, would not be one without tensions within and between different cultures, and conflicts between perceptions of self-interest and social responsibility. The Regional Seminar saw the need for continuing moral/values education and for widening its scope and concept in order to counter the tendencies towards material self-interest, consumerism, and militarism noted in the scenario. It also noted that religious education alone may not adequately cover the widening need for human values education.

Concluding Remarks

In each of the five future scenarios, the Regional Seminar believes education has a part to play in contributing to positive outcomes. Nevertheless, it wishes to emphasize that education is only one of the players in the team making the effort needed to arrive at a better world. Various important institutions in society - social, political, economic, cultural and scientific - must pitch in and play their part towards the making of a promising 21st century.

National Goals

The national goals which had been identified as common to all the participating countries of the Asia and the Pacific region in the 1988 study by the NIER were reconsidered in the light of the discussions on the various scenarios. It was felt that none of these goals had lost its relevance, and that they are likely to remain valid for some decades to come. As these goals have been stated in the form of very broad general formulations, what is needed is not so much changing the form in which they have been formulated as to indicate, wherever important and necessary, the specific meaning and the context in which they need to be interpreted. What the Regional Seminar tried to do, therefore, was to add explanatory statements to each of the

stated goals so that they are developed, or reinterpreted, in the context of some new issues and concerns that have already emerged, or, taking a longer time perspective, are likely to become central to the whole or most parts of this region. In a very few cases, an addition of specific elements has been suggested.

The Regional Seminar has also recommended three areas which need to be reflected in the articulation of national goals of each country. Even these additional areas are not entirely new. They already find a place in various ways in statements of policies and programmes of many countries. The purpose of suggesting these additions is to emphasize the importance that needs to be given to them. In some ways, they are fundamental to the making of a better world in the 21st century, if not to the survival of the world itself. These areas are:

1. Promotion of human rights and fundamental freedoms: These may be based on the Declaration of Human Rights and the Covenants on Economic, Social and Cultural Rights, and Civil and Political Rights. A reference has been made to these rights in Chapter II. Most of these are reflected in some of the existing statements of national goals. A specific mention of this may be necessary to reiterate and reassert their significance in the world of the 21st century.

2. Preservation, protection, conservation of the environment: We must prevent its further degradation and take urgent steps to remedy the damage already done. Sustainable development must be a world goal. This also, in a sense, is covered by the emphasis on the kind of development that countries should be striving for, and should result in a reorientation in strategies for development.

3. Developing an appropriate population policy: This also can be said to be a part of the developmental goals, but needs to be separately articulated to highlight its importance. Every country should have a population policy which encompasses the size of its population, its age make-up, its various elements, and its strategy for achieving unity whilst preserving cultural diversity.

The Regional Seminar also felt that all national goals need to be seen in a wider world perspective, and in the context of growing interdependence of the world, and the overall goal of creating One World. Each country needs to have an internationalization policy which services the reality of interdependence, of transnational conglomerates, of gains through co-operation, and of helping each other. The following paragraphs give explanatory statements of each national goals.

National Integrity, Unity and Security

It was agreed that the goal of national integrity, unity and security was still valid for all countries of the region, but the goal needs to be interpreted in the light of a number of developments. The enhanced effectiveness of the United Nations' peace-making and aggression-resisting role means that nations should be prepared to see this goal as being achieved through it. Military defence pacts seem to be on the decline while we are entering a new era of economic pacts which involve new concepts of shared integrity,

unity and security. A growing concern in the achievement of the goal is the growth of transnational corporations where allegiances might not recognize national boundaries or interests. This goal may only be achieved through co-operation involving a willingness to assume a shared perspective on national interest.

The Regional Seminar hoped that the pursuit of this goal would not lead to nationalistic chauvinism. National integrity does not mean cultural uniformity. There will need to be some harmonization of diverse beliefs and interests. No group should be the subject of discriminatory practices simply on the basis of group membership.

Social and Economic Justice and Development

The Regional Seminar took this goal to mean that whilst pursuing economic development, nations should have a proper regard for social justice. As such the Regional Seminar agreed that the goal is still relevant, and a priority for the immediate future. Every nation aspires to have its people enjoy prosperity and happiness. However, the Regional Seminar recognized that it is not always possible to achieve both optimum development and optimum social and economic justice, particularly as the former can be a precondition for the latter. Consequently the balance of emphasis on the former or the latter may vary at times in a country's history, though one should never be used as an excuse for forsaking the other. The Regional Seminar also noted some difficulties with the definition of economic justice and a need to give it some attention. It can be argued, for example, that economic justice can exist in conditions of inequality provided the fruits of development are distributed to a reasonable extent. It was also felt that for many countries, the fundamental issue is development, and that there may be a need in these countries to redefine the concept of development, particularly to take into account the various dimensions of the new concept of development.

Preservation of All the National Cultures of the People

The Seminar agreed that this national goal is very relevant currently and will also be so in the future. Some emphasis, however, needs to be placed on the non-majority cultures within countries. Every country has minority groups with cultures of their own, and these must be given recognition. Also, within the world there is a growing mobility of peoples and communities, and so there are communities of different nationalities who, by choice or by need, have settled in a new country. In order for these people to maintain their self-identity, their culture needs to be respected and recognized by the nation of which they have now become part, and in some way preserved by it.

Every nation needs to have a policy of multiculturalism which respects the rights of all groups to practise and pursue their cultures equally. However, it was recognized that there may need to be some adjustments in individual cultures in order to achieve harmony based on some common values. In this respect it is important to remember that no culture is static - a culture is dynamic.

The Regional Seminar also drew attention to the use of the word 'preservation'. It was felt that it should not imply 'locking up to keep', but should recognize that culture is ever changing, keeping the acceptable

things of the past and including new ideas of the present. The words 'respecting' and 'harmonizing' the cultures were seen as more acceptable.

Another challenge that was noted as important was that of ensuring that internationalization does not lead to an unhealthy cultural imperialism.

Respect for the Constitution and the Law

The Regional Seminar believed that respect for the constitution and the law remains an important goal, and that this priority will not diminish in the coming years. National goals of most countries are embodied in their constitutions or other forms of laws. Laws can be seen as a vehicle to regulate or direct achievement of national goals as set out in the constitution. However, it needs to be recognized that the emphases of the national goals may need changes or revisions in accord with changing circumstances. Thus, the national goals should be viewed as dynamic rather than rigid and static formulations. This is also true for the laws. Consequently, it needs to be stressed that the goals should be pursued in their current context and not in a literal sense.

Promotion of Principles of Democracy

All countries agreed that a continuing national goal should be promotion of the principles of democracy through a variety of means, including education. However, it was recognized that this is a very broad concept which can encompass many variations - democracy can take many forms. The goal needs to be expressed as a general ideal towards which each country is working because the form it takes in practice will have to be worked out by each country in the context of its own circumstances.

It was also noted that the trend in democratic countries was towards more participative democracy. Essentially, this means much more than every citizen voting and even being a member of political parties. Rather, it means establishing processes by which no decision is made at any level higher than it needs to be made. Decision-making is pushed down as close as possible to the people it will affect and these people are then involved in making the decision.

From another aspect, it means greatly heightened awareness of issues on the part of the whole population so that people can and will take action to ensure that their views are heard on matters that should be of concern to them. It also involves an element of doing things for oneself rather than simply relying upon some central authority to do it for one.

International Peace, Prosperity and Co-operation

The Regional Seminar agreed that this national goal remains relevant for the future. Advances in science and technology, while yielding positive gains, also make the world a more dangerous place to live in, given the proliferation of nuclear and mass destructive armaments, and wide-spread pollution. It is extremely crucial to continue to develop understanding and communication among nations to ensure world peace and the survival of mankind. The division of the world into the "have" and "have-not" countries, and north versus south, should not remain permanent. It is important that standards of

living should be raised across countries, and this can be done if there is more genuine co-operation and sharing of information and technology among nations, and a willingness to forfeit short-term goals of economic profits for long-term goals of stability and real progress.

It is imperative that more should be done in respect of environmental pollution, the mindless destruction of natural resources, world-wide health problems and unplanned population growth. It is, therefore, important that international prosperity and co-operation should not be confined to the economic area alone, but should embrace other areas of human activity - ideas, arts, culture, thus achieving more meaningful international progress.

Equality of Opportunity for All Regardless of Race, Sex, Creed or Location

The Regional Seminar was of the view that the relevance of this goal has not diminished over the years. It felt that this goal should not be seen as merely providing a formal legal framework, but requires vigorous affirmative actions so that all practices which are discriminatory are ended and conditions created in which people can exercise their right to equality of opportunity. In many countries, it requires affirmative action in favour of the deprived and the disadvantaged so that equality of opportunity becomes real for them. It was also felt that there was a need to safeguard the interests of people of different national origins so that they are not discriminated against in the country to which they have moved.

Respect for the Individual

The Regional Seminar recognized the continuing importance of this goal and felt that much greater attention needs to be paid to the creation of conditions in which each individual can realize her/his fullest creative potential. This means that the individual should not be viewed as merely a resource or 'human capital', but as a person who is important in herself or himself. Recognition of talent as a national resource is also important.

C: Role of Secondary Education in the Twenty-First Century

The Regional Seminar compared its list of ten goals from Chapter II with those from the 1988 NIER's Study on 'Some Critical Aspects of Secondary Education in Asia and the Pacific'. The ten goals identified cover the educational goals from the 1988 study.

The Regional Seminar then proceeded to apply its ten goals to each of the five scenarios developed by the Symposium. The intention was to establish which goals could be dropped or de-emphasized, which should be modified, and whether any new ones should be added.

For easy reference in this section, the ten goals are listed below:

Goal 1: "Human Person" - development of the human person.
Goal 2: "Productive/responsible Citizen" - development of productive and responsible citizens.
Goal 3: "Nationhood" - development of national unity and sense of nationhood.

Goal 4: "Values" - upholding the values, traditions and cultures of society.
Goal 5: "Modernization" - modernization through science and technology.
Goal 6: "Quality/Equity/Access"
Goal 7: "Work" - preparation for a world of work.
Goal 8: "Further Education" - preparation for further Education.
Goal 9: "Contribute to nation" - development of the capacity to contribute to the well-being of the nation.
Goal 10: "International" - international understanding, co-operation and peace.

The Regional Seminar drew attention to a concern that applies now, and also applies to each scenario. Countries are expected to select from their list of goals the curriculum which is to be taught to children. Unfortunately, the full curriculum can then become unmanageable in size. It is presumed that care will be taken not just to keep adding to the curriculum.

It will also be important to integrate learning in a holistic way, bringing the ten goals together coherently.

Scenario 1 - Exploding Knowledge: Science and Technology

Under this scenario, Goal 5 "Modernization", would need to be rewritten:

"Modernization through the appropriate and balanced use of technology for the benefit of humanity".

This modification is important, or else this goal could easily pre-empt other goals. It will also be important for students to learn how to select appropriate information.

The development of creativity (Goal 1 "Human Person") becomes crucial in this scenario. Care would need to be taken to ensure that students are given sufficient freedom to develop their creative capacities. This will be crucial for the outstandingly able. If this freedom does not exist, then creativity will be stifled and will lead to this Region being left behind.

So that young people are not blinded by the bright lights of modernization, it will be important to balance new knowledge with the wisdom of the past. This will be done through focusing on the cultural and traditional aspects of Goal 4 "Values".

Scenario 2 - The Changing Concept of Development

The ten goals are quite well-focused for this scenario. So also is the point made in Chapter II that secondary education provides diversity through electives (options).

The concept of Goal 2 "Productive Citizen" should be broadly interpreted. Economic productivity is only one aspect of a productive citizen. It is important, too, to value one's own culture (Goal 4 "Values"), and ways of life rather than just wanting to emulate those of industrialized nations.

None of this is intended to suggest any less emphasis on Goal 5 "Modernization". This will continue to required extended mathematics, science and computer courses. (Note the caveat earlier about content overload for students.)

For countries with the kinds of problems identified in this scenario, a special focus on Goal 6 "Access", especially for disadvantaged groups, is needed. Within these countries for Goal 9 "Contribute to nation", is important to encourage the development of young people with a commitment to helping their nation and its people. For countries with more resources, a focus on Goal 10 "International" leading to a more supportive approach would be helpful.

Scenario 3 - The Emerging Interdependent World

For this scenario, Goal 10 "International" would be emphasized.

Goal 4 "Values" would need to be broader so the concept of culture would be outwards as well as towards the country. Closer personal relationships between different peoples will also help.

Goal 3 "Nationhood" could easily become counter-productive in this scenario, in the sense that ultranationalism would conflict with Goal 10 "International". A wider regional unity would be appropriate.

In this scenario, there is the potential to widen the gap between rich and poor (nations and people) even further. It is therefore, crucial for well-off countries to focus on Goal 9 "Contribute to nation" as a world process, rather than only in their own countries.

This would require a drastic reorientation of content and process of curriculum at all stages of school education. Some of the techniques relevant to some countries are:

- computer and fax links between schools;
- student exchanges, sports and cultural exchanges;
- shared TV experiences;
- sharing teaching resources; and
- international schools.

In this scenario, the problem of comparability of qualifications would have to be addressed. A world language may become a curriculum need.

Scenario 4 - The Looming Problems

The ten goals as set out by this Regional Seminar suggest a consciousness of this scenario already. A focus on Goal 9 "Contribute to nation" is crucial. This goal needs to be extended to a world problem approach especially with respect to environmental degradation, population concerns, and the like.

Just teaching towards this goal in the curriculum will not be enough. Three other strategies would be:

- practical experience for young people working on significant problems;
- poverty alleviation programmes, focusing on Goal 7 "Work", for young people; and
- educating the mass of the population directly on current environmental issues.

Where young people, in particular, are being attracted to other countries for work which sometimes turns out to be virtual slavery and exploitation of persons, the education system needs to emphasize Goal 1 "Human Person", Goal 4 "Values" and Goal 7 "Work". The education system needs to teach the reality that the world of work can have a harsh "rip-off" side.

This scenario hints at a further economic problem. "Where economic growth can be seen to have negative effects, these must be weighed against any potential benefits". The inference could be drawn that some sort of control would be applied. In fact, with market places being freed up, world-wide economic growth is driven by the market place. This leaves the way open for huge trans-national companies to have an impact beyond that which governments can control.

In fact, with a small stretch of the imagination, trans-national companies could be seen as new feudal lords or as mini-states. There are dangers in this power:

- knowledge becomes a commercial property, not freely available;
- exploiting ideas for commercial value leads to convergent thinking, not divergent (which is needed to open up the future); and
- the focus is on enterprise success, and may harm people or environment.

In this extension of the scenario, education of young people may have little impact in the short or medium term. However, educators can seek to influence planners and policy makers. (A form of adult education!)

Scenario 5 - The Crisis of Human Values

This scenario would certainly have been in the minds of many educational planners. It has led to the kinds of aims and objectives set out in Goal 4 "Values".

Some countries do emphasize teaching and learning in this goal area, but not all. In some of the countries which do include such an emphasis, the goal remains unfulfilled because the values approach has not been incorporated across the curriculum. Even then, the teaching and learning in schools may not be effective, because home and society may not be supportive, or they provide lip-service only to the values. As well, the support which could be provided to values development by the mass media (press, radio, TV) is often lacking, or their impact may even be counterproductive. An all-round effort is needed, including public education.

This Regional Seminar acknowledges the impact of Shaikh Maqsood Ali's words;

"It is relatively easier for man to conquer the world than conquer himself."

The aims and objectives in Goal 4 "Values", may be hard to instil in young people. That should not stop countries from trying.

Overview

Having examined the five scenarios, the Regional Seminar notes that it is likely to be some combination of all and others, rather than any single one, which actually forms the future.

The Regional Seminar therefore went on to consider some issues for secondary education which would be relevant to any scenario, at least for the early part of the twenty-first century. These were:

* providing young people with a sense of purpose, direction, and meaning in life;
* the challenge of educating to full potential;
* the place of women;
* welfare of teachers;
* the education and training of teachers;
* student guidance and counselling; and
* lifelong education.

The next section of this Chapter gives a brief summary of this Regional Seminar's deliberations on these issues. This summary will give a guide for readers wishing to consider their educational goals. The summary may well form the basis of future Regional Seminars.

D: Some Reflections on Issues Involved in Implementing Secondary Education for the Twenty-First Century

The summary of deliberations on each of these issues should not be read as comprehensive or complete. At this stage, they are merely a guide.

Providing Young People with a Sense of Purpose, Direction, and Meaning in Life

This Regional Seminar notes that in many countries many young people are disenchanted, angry and destructive, sometimes putting pressure on governments, and destroying parts of society. Those who find work generally do gain a purpose, but there are others who are educated, yet remain unemployed and/or purposeless.

In Goal 7 'Work', it is appropriate to combine a work ethic with Goal 9 'Contribution to nation' so young people have a desire to contribute to society, to build their country, and to create employment.

It is also important to build in to Goal 3 'Nationhood' a sense of responsibility to sustain the progress of the generations that have gone before. Life is better, and young people need to learn to value this progress.

The Challenge of Educating to Full Potential

Talented people are a key to the quality of the development of the nation. In providing secondary education for all, it is essential not to lose sight of the very able and specially gifted. Extension opportunities need to be available to students under Goal 1 'Human Development', so that all students, but especially the talented, are helped to realise their potential. Education needs to make all learners special.

As the talented will play such major roles, there needs to be ways to identify and promote the gifted and very able. They should also be focused towards altruism, through Goal 9 'Contribute to Nation', so they develop a commitment to working for the people.

The Place of Women

The ideal is to reach a point where positive discrimination will no longer be needed. The role of secondary education is to continue to widen the horizons of young women so they believe they can do all the things implied in the ten goals for education and take a full role in leadership and decision-making.

Women are increasingly joining the workforce, yet they continue to be expected to run their home, and care for their children, as well as working. Effectively, they have three jobs. Care needs to be taken to ensure that assumptions of society do not stereotype women, especially in terms of shutting them out of education. Countries are encouraged to explore these issues on men's and women's roles:

- Are they equal or complementary ?
- Are they fixed or open ?
- Are the roles restricted or are people free to choose ?

Equality of opportunity will continue to be the main concern for at least the first part of the twenty first century. Equitable achievement will be the goal to be measured in the future.

Welfare of Teachers

In Chapter II, Recommendation 10, the Regional Seminar made some points about teacher education. Having gone to the expense of educating and training teachers, it is a waste to lose them because of inadequate conditions, or undervaluing them.

Effective teachers are crucial to the realization of the ten goals set out in Chapter II. Countries need to address this issue.

Three specific areas of concern are:

1) Teachers do not feel valued. They feel blamed for the ills of society. They need a status which adequately recognizes them as professionals.

2) Conditions of service need improvement. These include: adequate

salary, regularly adjusted; a good place of work; adequate resources for the job; smaller classes; a limit to daily class contact; better pay for qualifications, performance, service and extra tasks; a positive career structure; and retirement provisions.

3) In addition to the above is the ongoing in-service training of teachers. With the pace of development in society, some sort of sabbatical leave is needed for teachers to re-enter the world of work, and to retrain, and to grow as professionals. They need opportunities to gain a higher vision than the parents of their students.

There has been considerable research showing the difficulties of improving teaching and learning despite changes such as those suggested above. If more effective teaching is to be achieved, teachers will have to work with their employers to explore techniques that have been found to work such as group collaboration, participatory decision-making and work re-structuring.

The Education and Training of Teachers

Countries are aware that the realization of their educational goals requires appropriately trained and qualified teachers. The diversity of secondary education demands a diversity of teachers. Factors to consider include:

- the breadth of educational goals;
- the complexity of pupil needs, including special abilities and disabilities;
- diverse curriculum requirements, covering academic and vocational areas;
- the need for flexibility and knowledge to be able to harness new technology to educational uses;
- distance education, pre-training, in-service training.

Many countries are encountering problems in teacher supply. Great emphasis should be placed on maintaining quality in terms of teachers' educational qualifications and training. This has to be modified when seeking teachers for vocational subjects, or when the supply of appropriately trained and/or qualified teachers is not sufficient. Some of these problems will be overcome if the matters in the teacher welfare issue, above, are properly handled. However, the need for diversity at the secondary level will inevitably continue to demand novel solutions.

This topic could well form the basis of a future Regional Seminar.

Student Guidance and Counselling

The ten goals for education imply enormous expectations of students. In effect, the whole world is being compressed into the school, and students are asked to learn about it, to make choices, and act on them. This is at a time when students are in a stage of significant physical, emotional and social development.

To help students in their learning, in their choices, and in their development, they need advice, guidance and personal counselling. Teachers can provide some help, but the demands of curricula and extra-curricula work leave them too little time to do this task properly.

Within schools, there is a need for a support unit with one or more specially trained teachers and/or counsellors who can work with students. Through in-service training, they can assist other teachers to be more effective in this pastoral work with students.

Lifelong Education

Teaching students how to learn in an explicit way is an important element of Goal 1 'Human Person'. The acquisition of study skills, problem-solving skills, and creativity will assist with this development. Knowing how to learn, and wanting to keep on learning, are important for students heading for the twenty-first century.

The world is constantly changing. Knowledge is increasing rapidly. What students learn is soon out-of-date. The ability to keep on learning, to pick up further training, and to return to education, is the key to the future for the young (and not-so-young person). This is what is meant by lifelong learning.

Chapter IV

Conclusions and Recommendations

Conclusions

1. Major socio-political, economic and cultural developments have become the bases of many educational reforms, including changes in the goals, aims and objectives of secondary education in countries of the Asia-Pacific region.

2. It is in the tendency of education to be re-active to socio-political, economic and cultural changes, but there are many examples of how education has been and could be pro-active, innovative and futuristic.

3. Secondary education is no longer for a few. It should not be merely preparation for higher education, but also should prepare youth for the world of work, especially those for whom secondary education is the end of formal schooling.

4. In many countries, secondary education is regarded as a weak link in the education system, but countries in the region are exerting efforts to strengthen it.

5. In more and more countries, basic education is being extended up to at least the lower secondary education level.

6. The goals, aims and objectives of education in general, and secondary education in particular, vary in emphasis, but there are many commonalities.

7. Many of the existing goals, aims and objectives of education in general, and secondary education in particular, remain valid, and ought to be continued. However, certain dimensions of some need to be de-emphasized; others emphasized; and new ones added, bearing in mind the expected scenarios in the twenty-first century.

8. In Chapter II, the Regional Seminar specified as Goal 10 'International Understanding, Co-operation, and Peace'. While this goal is accepted by all as appropriate, the educational emphasis given by different countries varies considerably. The suggested future scenarios and the deliberations of this Regional Seminar indicate the appropriateness of a trend towards the world envisaged by this goal.

9. The eminent thinkers involved in the ACEID PROAP Regional Symposium on Qualities Required of Education Today to Meet the Foreseeable Demands of the Twenty-First Century which was held in Bangkok in August 1990, provided the Regional Seminar with many useful ideas which could form the bases in re-thinking the goals, aims and objectives of education in general, and secondary education in particular.

Recommendations

Before recording its recommendations, the Regional Seminar wishes to

reiterate the possibilities and limitations of the roles education can play.

* Education has crucial roles to play developing whole people, supporting national development, and helping to resolve world problems.

* Education is only one of the players in a team effort on each of these tasks.

* All significant institutions in society (social, political, communication, economic, scientific, etc.) must play their part in the making of a promising 21st century.

At the national level:

1. The need for emphasis on universalizing primary education and eradicating illiteracy in developing countries is recognized, but secondary education should not be neglected in the process, especially in countries where secondary education is a weak link in the educational chain.

2. In order to ensure quality secondary education, a total system-wide reform of secondary education, based on systematic research, is recommended where needed, rather than piecemeal, ad hoc reforms in specific areas such as examinations.

3. In the provision of primary and secondary education, countries should organize non-formal or alternative programmes if needed, with links with the formal system.

4. In the national effort to reform secondary education, focus must be on the "human development principle", i.e. development of the intellectual, attitudinal, spiritual, cultural and physical potential of a student as a whole human being.

5. In the context of the pursuit of secondary education for all, equal educational opportunities must be stressed, including disadvantaged population groups.

6. Secondary education programmes should offer a combination of core and elective subjects or structured options, relevant to the varied aptitudes and interests of students, as well as the needs and requirements of local communities. In regard to occupational skills-related subjects, the agriculture, business and industry sectors should be involved in establishing programmes.

7. The reform and improvement of the examination system must be pursued in line with the changing thrusts of education, the changing nature of secondary school students, and the emerging needs and requirements of the community and nation.

8. New content and materials should permeate school curricula (including alternative curricula) and textbooks. Better pedagogy/andragogy should be explored, and a variety of methods including indigenous methods of inculcating humanistic, ethical/moral and cultural values,

should be used.

9. In organizing secondary education programmes, it is essential to mobilize all the various resources of the country (e.g. enterprises, farmers, craftsmen.)

10. The re-training of and enhancement of the quality of teachers and other educational personnel must be considered as one of the key strategies for secondary education development.

11. The goal identified in Chapter II, 'International Understanding, Co-operation, and Peace', should be given greater emphasis wherever possible.

    [Note: See also the recommendations of the Regional Seminar in Chapter II of this Report]

At the regional level:

1. Bearing in mind the outcomes of the ACEID, PROAP Regional Meeting to Assess the State-of-the-Art of Secondary Education, held in Surat Thani, Thailand in August 1991; and this APEID-NIER Regional Seminar on Goals, Aims and Objectives of Secondary Education, held in Tokyo in October 1991 - UNESCO, in collaboration with APEID Associated Centres, such as the National Institute for Educational Research (NIER) of Japan, should:

   (i) organize an experts group to prepare a research design (with appropriate research instruments/tools for in-depth study) for a system-wide reform of secondary education;

   (ii) provide technical assistance and financial support for the conduct of country studies of secondary education;

   (iii) convene a regional meeting to ensure continuity of this seminar and to synthesize the country studies, and to co-operatively develop action programmes to launch massive system-wide reform of secondary education; and

   (iv) provide technical assistance and financial support for developing pilot projects/development growth points for new designs of secondary education.

2. UNESCO, in collaboration with APEID Associated Centres such as NIER, should organize a series of seminar-workshops focused on priority problem areas in secondary education, including those to be identified by the regional seminar to synthesize the findings of the country studies on secondary education, cited in 1 (iii).

3. ACEID PROAP in collaboration with NIER, should continue organizing periodically (every four years), a Regional Seminar on the Future of Education in Asia and the Pacific; and should encourage and support country studies on the future of education, and education of the fu-

ture.

4. A meeting of top government officials in Asia and the Pacific should be held to formulate policies and strategies for providing secondary education for all on the threshould of the 21st century. The Regional Educational Ministerial Conference to be held in 1993 should be the preparatory step for this purpose.

At the international level

1. International forums should be held periodically to discuss changing future scenarios which will have strong influences on national goals and aims of education.

2. International efforts and concrete action should be promoted to ensure international understanding, co-operation and peace, so that peace dividends (funds) could be re-channeled towards quality education for human development, and towards improving the quality of the lives of all the world's people.

Annex

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